



A program of the Natural Resource Information System, Montana State Library

# Plant Species of Concern

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## Introduction

The Montana Natural Heritage Program (MTNHP) serves as the state's clearinghouse and principle information source for Species of Concern — plants and animals that are at risk or potentially at risk in Montana. This report, which updates and replaces the 2003 publication, identifies 358 vascular plant Species of Concern (SOC) and another 133 Potential Species of Concern (PSOC), based on information gathered from field inventories, publications, reports, herbarium specimens, and the knowledge of Montana botanists. This report includes 35 additions to the SOC list compared with the 2003 publication; many of these are globally rare species with a rank of G3/S3 showing that Montana contains all or a large part of their entire distribution. Seven species have been removed from the SOC list for various reasons which are noted below. Taxa in the SOC category include all species, subspecies or varieties that are currently ranked S1, S1S2, S2, S2S3, SH or G3.

Potential Species of Concern include taxa currently ranked as S3 in the state, except for G3 taxa which are included as Species of Concern.

Taxa previously included as Potential Species of Concern with ranks of SR (reported in Montana) or SU (unrankable due to a lack of information) are now included under a new review category. However, species on review are not included in this published report as it is envisioned that they will change frequently as species are reviewed and either added to the SOC or PSOC categories or dropped from further consideration.

Also included in this report are the status ranks for 118 bryophyte (mosses and liverworts) species and 109 lichen species currently considered rare or potentially rare in Montana, based on recent work by experts studying these groups; these lists remain largely unchanged from the 2001 publication, which was the first time non-vascular plants were included. This publication is available in electronic format on the MTNHP website (<http://www.mtnhp.org>).

The MTNHP continuously reviews and updates status ranks as new information and insights are generated by field surveys, research, and submitted observations. Status ranks and information supporting them, are informally reviewed by botanists and resource specialists, if you wish to comment or contribute information to this process please contact the MTNHP Botanist. The information that we receive from botanists and others throughout the state is essential in this process, and contributes to more accurate assessments of species' status. We continue to ask that all observations of these species be reported to the Heritage Program, with as much detail as possible. A copy of a field survey form specifying the information that should be submitted is available at the end of this publication and on our website. Review



*Physaria brassicoides* (Double Bladderpod)  
Illustration by: Debbie McNeil

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of species' ranks throughout the year will likely lead to some changes in species included in this publication or the status rank of an individual species prior to publication of a new SOC report. These changes made between publications are reflected in our on-line field guides, species search function, and through data requests.

Information concerning vascular plant species contained on the SOC, PSOC or Review lists may be viewed on the MTNHP's on-line ***Rare Plant Field Guide***. The *Field Guide* provides information for vascular plants, including species' characteristics, identification, habitat, distribution, state rank reasons and references, as well as technical illustrations and photographs of the plants and their habitats. For each species, a link to the NatureServe website (<http://www.natureserve.org/>) provides access to information on the status of the species throughout North America, assembled from state and provincial Natural Heritage databases. Information in the *Rare Plant Field Guide* is continuously updated and expanded, so please check it often for current species' information. If you have questions concerning the field guide or find errors or omissions please contact the MTNHP.

Distributional data and status lists can be queried on-line by county; township, range and section; watersheds; taxonomic group or one of several rank/status criteria. More detailed information or additional assistance can be requested from MTNHP using the *Information Request* function on our website, or by phone, e-mail or mail.

## Additions to the Species of Concern List

(since the 2003 publication)

*Botrychium montanum*  
*Brickellia oblongifolia*  
*Calamagrostis tweedyi*  
*Camissonia subacaulis*  
*Cardamine rupicola*  
*Castilleja crista-galli*  
*Castilleja gracillima*  
*Collomia debilis* var. *camporum*  
*Delphinium bicolor* ssp. *calcicola*  
*Draba crassa*  
*Draba daviesiae*  
*Erigeron allocatus*  
*Erigeron flabellifolius*  
*Erigeron parryi*  
*Erigeron radicatus*  
*Eriogonum brevicaule* var. *canum*  
*Eriogonum capistratum* var. *muhlickii*  
*Eriogonum soliceps*  
*Ipomoea leptophylla*  
*Lesquerella klausii*  
*Listera borealis*

*Oxytropis lagopus* var. *conjugens*  
*Pedicularis contorta* var. *ctenophora*  
*Pedicularis contorta* var. *rubicunda*  
*Pedicularis crenulata*  
*Penstemon caryi*  
*Penstemon flavescens*  
*Physaria saximontana* var. *dentata*  
*Polygonum polygaloides* ssp. *confertiflorum*  
*Psoralea hypogaea*  
*Senecio eremophilus*  
*Sphaeromeria capitata*  
*Syntheris canbyi*  
*Townsendia nuttallii*  
*Townsendia spathulata*

## Deletions from the Species of Concern List

(since the 2003 publication)

*Carex heteroneura* var. *chalciolepis* – Reports of this species from Montana require additional review.  
*Carex norvegica* ssp. *inserrulata* – Uncertain taxonomic status.  
*Carex pallescens* – Occurrences of this species in Montana are likely introduced.  
*Cypripedium parviflorum* – Moved to PSOC list due in part to the number of known extant occurrences, level of threat to the species and the relatively wide distribution in the state.  
*Ribes cognatum* – Reports from Montana are likely based on mis-identifications.  
*Senecio pauciflorus* – The status of this species in Montana requires additional review.  
*Trifolium cyathiferum* – The status of this species in Montana requires additional review. At least two of three documented locations in Montana are likely adventive.

## How to Read the Lists

Species that have been added to the SOC or PSOC lists are highlighted (**bolded**). When only the state rank has changed, that rank is **bolded**. Changes in global ranks are not highlighted. Also provided are federal designations under the U.S. Endangered Species Act and administrative designations assigned by the U.S. Forest Service or Bureau of Land Management.

The lists are organized alphabetically by scientific name (*Genus, specific and subspecific epithets*) within the major groups of Ferns and Fern Allies, Dicots and Monocots. Family names are included for each species. A common name is also provided for each species on the SOC and PSOC lists. Nomenclature for vascular plants generally follows *Vascular Plants of Montana* (Dorn 1984) since these are the scientific names that generally will be most familiar to users of the report. Synonyms are

included for taxa where NatureServe Explorer (2006), The PLANTS database (2006), *Flora of North America* (1993-) or *Flora of the Pacific Northwest* (Hitchcock and Cronquist 1973) uses a different name. In cases where an infraspecific taxon is included as an SOC or PSOC, the name can generally be found in one of the previously mentioned references other than *Vascular Plants of Montana*. In other cases, use of a name differing from that used in *Vascular Plants of Montana* made sense; in these cases the name used in that publication will be listed as a synonym.

## Heritage Program Ranks

The international network of Natural Heritage Programs employs a standardized ranking system to denote **global** (range-wide) and **state** status (NatureServe 2006). Species are assigned numeric ranks ranging from 1 (highest risk, greatest concern) to 5 (demonstrably secure), reflecting the relative degree of risk to the species' viability, based upon available information.

A number of factors are considered in assigning ranks — the number, size and quality of known occurrences or populations, distribution, trends (if known), intrinsic vulnerability, habitat specificity, and definable threats. The process of assigning state ranks for each taxon relies heavily on the number of occurrences and Element Occurrence (EO) ranks, which is a ranking system of the quality (usually A through D) of each known occurrence based on factors such as size (# of individuals) and habitat quality. The remaining factors noted above are also incorporated into the ranking process when they are known. The “State Rank Reason” field in the *Rare Plant Field Guide* provides additional information on the reasons for a particular species’ rank. The ranking process being used by MTNHP for plant species relies heavily on the methodology presented by Regan, Master and Hammerson (2004), though it does not strictly follow the approach outlined therein.

Rank definitions given below reflect some changes in terminology from that used by NatureServe. However, the meaning and criteria for ranks remain unchanged, to maintain consistency with international standards.

### Rank      Definition

**G1 S1** At high risk because of extremely limited and/or rapidly declining population numbers, range and/or habitat, making it highly vulnerable to global extinction or extirpation in the state.

**G2 S2** At risk because of very limited and/or potentially declining population numbers, range

and/or habitat, making it vulnerable to global extinction or extirpation in the state.

<b>G3 S3</b>	Potentially at risk because of limited and/or declining numbers, range and/or habitat, even though it may be abundant in some areas.
<b>G4 S4</b>	Apparently secure, though it may be quite rare in parts of its range, and/or suspected to be declining.
<b>G5 S5</b>	Demonstrably secure, though it may be quite rare in parts of its range.
<b>GH SH</b>	Historical, known only from records usually 40 or more years old; may be rediscovered.

### Combination Ranks

**G#G# or S#S#**

Indicates a range of uncertainty about the status of the species.

### Sub-rank

**T#** Rank of a subspecies or variety; appended to the global rank of the full species, e.g. G4T3.

### Qualifiers

**Q** Distinctiveness of the taxon is questionable; appended to the global rank, e.g. G3Q.

**?** Denotes uncertainty; inexactness.

## Federal Status

Designations in this column reflect the status of a species under the U.S. Endangered Species Act (ESA), or as “sensitive” by the U.S. Forest Service (USFS) or the Bureau of Land Management (BLM).

### **U.S. FISH AND WILDLIFE SERVICE (Endangered Species Act)**

Status, if any of a taxon under the federal Endangered Species Act of 1973 (16 U.S.C.A. § 1531-1543 (Supp. 1996)) is noted. Regulatory aspects of the Endangered Species Act affect plants only when they occur on federal lands or may be affected by federal actions. Currently, four plants in Montana have designations under the U.S. Endangered Species Act.

### Designation      Description

**Threatened**      Listed as Threatened under the ESA

**Candidate**      Candidate for Listing under the ESA

## BUREAU OF LAND MANAGEMENT

The Special Status Species Policy 6840 gives the State Director the responsibility of designating Bureau of Land Management (BLM) sensitive species. The sensitive species designation is used to provide conservation actions for species to preclude the need for listing under the ESA and to improve the status of species to the point where special status recognition is no longer warranted. Sensitive species are afforded the same protection as that provided for federal candidate species.

### Designation    Description

BLM	Denotes species listed as sensitive on BLM lands.
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## U.S. FOREST SERVICE

The U.S. Forest Service Manual (2670.22) defines the status of sensitive species on Forest Service lands. The Regional Forester (Northern Region, Region 1) designates sensitive species on National Forests in Montana; these designations were last updated in 2004 and they apply only on USFS-administered lands.

### Designation    Description

USFS	Denotes species listed as sensitive on National Forest lands.
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Note: The U.S. Forest Service is implementing new planning regulations, which will lead to changes in the identification of “special status” species on National Forest lands. Sensitive species will continue to be designated for Region 1 under existing agency policy, but in addition many of the newly revised Forest Plans may also identify “Species of Concern” (taxa ranked G1-G3, T1-T3) and “Species of Interest” (state rare taxa ranked S1-S2). During this transition period, the designation in the Federal Status column refers to the status under the existing sensitive species policy.

## Threat Level

New to this SOC report is a column that denotes the level of threat in the state. Information on actual and/or potential threats, such as those posed by invasive weeds, development, livestock grazing, resource extraction, recreational use, hydrologic alterations, etc. were collected in part from survey forms completed by professional and amateur botanists, ecologists and natural resource professionals. Potential impacts to species as a result of ambiguous threats such as global warming were not included in the assessment. 121 taxa were assigned a threat level during this initial analysis, including those with an inexact assignment such as “Moderate?” or “Low-Moderate.”

### Level

High

### Definition

Generally defined as a significant likelihood of impacts, activities or events that will result in a severe (>60%) reduction in population numbers or habitat for the species in Montana. The threat or threats exist in part or all of the species’ range or are thought to be imminent. A combination of less severe threats may combine to raise the overall threat level to high.

Moderate

Generally defined as a significant likelihood of impacts, activities or events that will result in, or have the potential to result in, a major (20-60%) reduction in population numbers or habitat for the species in Montana. The threat or threats may exist in part or all of the species’ range or may be expected to occur in the near future (usually 1-5 years). Several low level threats may combine to raise the overall threat level to moderate.

Low

Generally defined as a significant likelihood of impacts, activities or events that will result in a small, though significant (5-20%) reduction in population numbers or habitat for the species in Montana. The threat or threats may exist in part or all of the species’ range or be expected to occur in the future (usually 5-20 years).

Very Low

No significant likelihood of impacts, activities or events that will result in a reduction in population numbers or habitat for the species in Montana.

NA

Not Assessed.

\*\*

Used for species ranked SH.

## County Distribution

This column lists the county distribution (using the first four letters of the county name), including extant and historical occurrences that are known for the species in Montana. For most SOC, the number of known occurrences (in parentheses) in that county follows the county name. Occurrences that cross county boundaries are counted for each county. Many older occurrence records and specimen collections are only known from vague location information and the area mapped as the potential area of observation may be quite large, leading to more than one county being counted.

Note: Element Occurrences do not always correspond to a biological population (i.e. a population may be tracked as more than one occurrence by MTNHP) due to issues associated with data management and mapping. Thus, the number of occurrences should not be used as the sole indicator of abundance.

## Montana Endemic

Taxa believed to be endemic (i.e. not occurring elsewhere) to the state of Montana are noted here. Currently, 19 taxa (all dicots) on the SOC list are thought to be endemic to the state.

## Notes

Additional information for each SOC is included here, most notably:

1. Species not found in Dorn (1984) are noted as such.
2. Taxa that are included in, or that would “key out” in *Vascular Plants of Montana* under an expanded concept and/or a different name are noted.
3. For taxa tracked at an infraspecific level, it is noted how many named subspecies or varieties there are total for that species and how many of them are known to occur in Montana.

## Acknowledgements

We would like to gratefully acknowledge the many people who contributed information on plant species' occurrences and distribution throughout Montana over the years – those contributions are the building blocks of the MTNHP databases and this publication. We encourage you to continue submitting data on Species of Concern so that status ranks and this publication are as accurate and comprehensive as possible.

## Selected References

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## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<b>Ferns and Fern Allies (<i>Pteridophyta</i>)</b>							
<i>Asplenium trichomanes</i> Maidenhair Spleenwort	Polypodiaceae	G5/ <b>SH</b>		**	Flat (1)		
<i>Botrychium ascendens</i> Upward-lobed Moonwort	Ophioglossaceae	G2G3/ <b>S1S2</b>	USFS	Low-Mod	Flat (5), Glac (4), Lake (1), Lewi (1), Linc (10)		Not in Dorn
<i>Botrychium campestre</i> Prairie Dunewort	Ophioglossaceae	G3G4/S1		Low-Mod	Flat (2)		Not in Dorn
<i>Botrychium crenulatum</i> Wavy Moonwort	Ophioglossaceae	G3/ <b>S2S3</b>	USFS	Low-Mod	Flat (11), Gran (1), Lake (5), Linc (27), Miss (2), Sand (1)		
<i>Botrychium hesperium</i> ( <i>B. matricariifolium</i> var. <i>hesperium</i> ) Western Moonwort	Ophioglossaceae	G3G4/S2	USFS	Low-Mod	Deer (1), Flat (10), Glac (4), Linc (3)		
<i>Botrychium lineare</i> Linearleaf Moonwort	Ophioglossaceae	G1/S1	Candidate	Low-Mod	Glac (4), Lake (1), Linc (1)		Not in Dorn
<i>Botrychium montanum</i> Mountain Moonwort	Ophioglossaceae	G3/S3		Low?	Flat (8), Lake (8), Linc (37), Miss (1), Sand (1)		
<i>Botrychium pallidum</i> Pale Moonwort	Ophioglossaceae	G3/S1		NA	Flat (2), Linc (1)		Not in Dorn
<i>Botrychium paradoxum</i> Peculiar Moonwort	Ophioglossaceae	G2/S2	USFS	Low-Mod	Deer (2), Flat (4), Glac (3), Gran (4), Jeff (2), Linc (8), Pond (1), Powe (1), Teto (1)		
<i>Botrychium pedunculosum</i> Stalked Moonwort	Ophioglossaceae	G2G3/S1	USFS	Low	Flat (2), Linc (8), Sand (1)		Not in Dorn
<i>Botrychium spathulatum</i> Spoon-leaf Moonwort	Ophioglossaceae	G3/S1		NA	Lake (1)		Not in Dorn
<i>Cystopteris montana</i> Mountain Bladder Fern	Polypodiaceae	G5/ <b>SH</b>		**	Flat (1), Glac (1)		
<i>Dryopteris cristata</i> Buckler Fern	Polypodiaceae	G5/S2	USFS	Low?	Flat (14), Lake (5), Linc (1), Miss (4), Rava (2)		
<i>Lycopodium dendroideum</i> ( <i>L. obscurum</i> var. <i>dendroideum</i> ) Treelike Clubmoss	Lycopodiaceae	G5/S1	USFS	NA	Flat (2), Glac (1), Linc (1)		
<i>Lycopodium inundatum</i> ( <i>Lycopodiella inundata</i> ) Northern Bog Clubmoss	Lycopodiaceae	G5/S1	USFS	NA	Flat (1), Miss (1)		
<i>Lycopodium lagopus</i> ( <i>L. clavatum</i> in part) Running Pine	Lycopodiaceae	G5/S1	USFS	NA	Flat (1), Glac (1), Linc (1)		Not in Dorn

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Ophioglossum pusillum</i> ( <i>O. vulgatum</i> ) Adder's Tongue	Ophioglossaceae	G5/S2	USFS	Low	Flat (10), Lake (11), Linc (2), Miss (5)		<i>O. vulgatum</i> in Dorn
<i>Polystichum kruckebergii</i> Kruckeberg's Sword-fern	Polypodiaceae	G4/S1		Low	Deer (1), Flat (1), Gall (1), Gran (1), Lake (1), Miss (1)		
<i>Polystichum scopulinum</i> Mountain Holly-fern	Polypodiaceae	G5/S1		NA	Rava (1), Sand (1)		
<i>Selaginella selaginoides</i> Low Spike-moss	Selaginellaceae	G5/S2		NA	Beav (2), Deer (3), Gran (3), Madi (1)		
<i>Thelypteris phegopteris</i> ( <i>Phegopteris connectilis</i> ) Northern Beechfern	Polypodiaceae	G5/S2	USFS	Low	Flat (1), Glac (1), Linc (12), Sand (4)		

### Flowering Plants - Dicots (*Magnoliopsida*)

<i>Adoxa moschatellina</i> Musk-root	Adoxaceae	G5/S2	BLM/USFS	Low	Carb (2), Gran (2), Jeff (3), Madi (1), Park (1), Stil (1)		
<i>Agastache cusickii</i> Cusick's Horse-mint	Lamiaceae	G3G4/S1	BLM/USFS	Moderate	Beav (5)		Not in Dorn
<i>Alnus rubra</i> Red Alder	Betulaceae	G5/S1		NA	Linc (1), Sand (4)		Not in Dorn
<i>Ammannia robusta</i> ( <i>A. coccinea</i> ssp. <i>robusta</i> ) Scarlet Ammannia	Lythraceae	G5/SH		**	Garf (1), Phil (1), Unknown (1)		
<i>Amorpha canescens</i> Lead Plant	Fabaceae	G5/SH	BLM	**	Cart (1), Rose (2)		
<i>Antennaria densifolia</i> Dense-leaved Antennaria	Asteraceae	G3/S1	USFS	Low	Deer (1), Gran (1)		Not in Dorn
<i>Aquilegia brevistyla</i> Short-styled Columbine	Ranunculaceae	G5/S2	USFS	Low?	Judi (12), Swee (1)		
<i>Aquilegia formosa</i> Sitka Columbine	Ranunculaceae	G5/S1S2	BLM	Low?	Beav (7), Madi (1)		
<i>Arabis demissa</i> Daggett Rockcress	Brassicaceae	G5/S1	BLM	NA	Carb (5)		Not in Dorn
<i>Arabis fecunda</i> Sapphire Rockcress	Brassicaceae	G2/S2	BLM/USFS	Moderate	Beav (7), Rava (5), Silv (10)	X	Not in Dorn
<i>Arabis kamchatica</i> ( <i>A. lyrata</i> var. <i>kamchatica</i> ) Kamchatka Rockcress	Brassicaceae	G5/SH		**	Flat (1)		Not in Dorn
<i>Arctostaphylos patula</i> Green-leaf Manzanita	Ericaceae	G4/S1		High?	Lake (2), Sand (1)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Asclepias incarnata</i> Swamp Milkweed	Asclepiadaceae	G5/S1		NA	Carb (2), Fall (1)		
<i>Asclepias ovalifolia</i> Ovalleaf Milkweed	Asclepiadaceae	G5?/S1	USFS	NA	Cart (1), Sher (1)		Not in Dorn
<i>Asclepias stenophylla</i> Narrowleaf Milkweed	Asclepiadaceae	G4G5/S1	BLM	NA	Cart (5), Rose (1)		
<i>Aster frondosus</i> ( <i>Sympotrichum frondosum</i> , <i>Brachyactis frondosa</i> ) Alkali Aster	Asteraceae	G4/ <b>SH</b>		**	Sand (1)		
<i>Aster ptarmicoides</i> ( <i>Solidago ptarmicoides</i> , <i>Oligoneuron album</i> ) Prairie Aster	Asteraceae	G5/S1		NA	Cart (1), Rich (1)		
<i>Astragalus aretioides</i> ( <i>A. serioleucus</i> var. <i>aretioides</i> ) Sweetwater Milkvetch	Fabaceae	<b>G4/S1</b>	BLM	NA	Bigh (1), Carb (5)		<i>A. serioleucus</i> in part in Dorn
<i>Astragalus barrii</i> Barr's Milkvetch	Fabaceae	<b>G3/S3</b>	BLM/USFS	Low-Mod	Bigh (3), Cart (1), Powd (22), Rose (17)		
<i>Astragalus ceramicus</i> var. <i>apus</i> Painted Milkvetch	Fabaceae	G4T3/S1	BLM	Moderate	Beav (1)		3 named varieties, 2 known to occur in MT
<i>Astragalus convallarius</i> ( <i>A. diversifolius</i> ) Lesser Rushy Milkvetch	Fabaceae	G5/S2	BLM	Moderate	Beav (2), Broa (2), Jeff (2), Lewi (10)		
<i>Astragalus geyeri</i> Geyer's Milkvetch	Fabaceae	G4/S2	BLM	NA	Carb (7), Garf (1)		
<i>Astragalus grayi</i> Gray's Milkvetch	Fabaceae	<b>G4?/S1S2</b>	BLM	NA	Carb (8)		
<i>Astragalus lackschewitzii</i> Lackschewitz' Milkvetch	Fabaceae	G2/S2	USFS	Low	Teto (8)	X	Not in Dorn
<i>Astragalus oreganus</i> Wind River Milkvetch	Fabaceae	G4?/S1	BLM	NA	Carb (5)		
<i>Astragalus racemosus</i> Raceme Milkvetch	Fabaceae	G5/S2		NA	Cart (7), Fall (1)		
<i>Astragalus scaphoides</i> Bitterroot Milkvetch	Fabaceae	G3/S2	BLM/USFS	NA	Beav (20)		
<i>Astragalus terminalis</i> Railhead Milkvetch	Fabaceae	G3/S2	BLM	NA	Beav (7), Madi (3)		
<i>Athyrsanus pusillus</i> Sandweed	Brassicaceae	G4/S1	USFS	Moderate	Rava (8)		
<i>Atriplex truncata</i> Wedge-leaved Saltbush	Chenopodiaceae	G5/S1		NA	Beav (2), Deer (1), Jeff (1), Lake (1), Lewi (1), Park (1)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Bacopa rotundifolia</i> Roundleaf Water-hyssop	Scrophulariaceae	G5/S1		NA	Casc (1), Ferg (1), Garf (1), Phil (1)		
<i>Balsamorhiza hookeri</i> Hooker's Balsam-root	Asteraceae	G5/S1		NA	Beav (1)		Not in Dorn
<i>Balsamorhiza macrophylla</i> Large-leaved Balsam-root	Asteraceae	G3G5/S2	BLM/USFS	Low	Beav (3), Gall (3), Madi (1)		
<i>Bidens beckii</i> ( <i>Megalodonta beckii</i> ) Beck Water-marigold	Asteraceae	G4G5/S2	BLM/USFS	Moderate	Flat (5), Lake (1), Linc (1), Miss (4)		
<i>Boisduvalia densiflora</i> ( <i>Epilobium densiflorum</i> ) Dense Spike-primrose	Onagraceae	G5/SH		**	Sand (1)		
<i>Brasenia schreberi</i> Watershield	Nymphaeaceae	G5/S1S2	USFS	Low-Mod	Flat (2), Lake (1), Linc (3), Miss (2)		
<i>Braya humilis</i> Low Braya	Brassicaceae	G5/S1	BLM	Low	Beav (2)		Not in Dorn
<i>Brickellia oblongifolia</i> Mohave Brickellbush	Asteraceae	G5/S1		Low	Park (1), Silv (3)		
<i>Camissonia andina</i> ( <i>Oenothera andina</i> ) Obscure Evening-primrose	Onagraceae	G4/S1	BLM	NA	Carb (6), Miss (1)		
<i>Camissonia parvula</i> Small Camissonia	Onagraceae	G5/S1	BLM	NA	Carb (2)		Not in Dorn
<i>Camissonia subacaulis</i> ( <i>Oenothera subacaulis</i> ) Long-leaf Suncup	Onagraceae	G5/S2S3		NA	Gall, Jeff, Madi, Powe, Silv		
<i>Cardamine oligosperma</i> var. <i>kamtschatica</i> Few-seeded Bittercress	Brassicaceae	G5T3T5/S1		NA	Flat (1), Rava (1)		2 named varieties, both occur in MT
<i>Cardamine rupicola</i> Cliff Toothwort	Brassicaceae	G3/S3		Very Low	Flat (1), Lake (3), Lewis (5), Miss (9), Powe (1)	X	
<i>Castilleja cervina</i> Deer Indian Paintbrush	Scrophulariaceae	G4/SH		**	Flat (1), Miss (1), Powe (1)		
<i>Castilleja covilleana</i> Coville Indian Paintbrush	Scrophulariaceae	G3G4/S2	USFS	Low-Mod	Rava (23)		
<i>Castilleja crista-galli</i> Mountainside Indian Paintbrush	Scrophulariaceae	G4?/S1		NA	Beav (1), Madi (1)		
<i>Castilleja exilis</i> ( <i>C. minor</i> ssp. <i>minor</i> ) Annual Indian Paintbrush	Scrophulariaceae	G5/S2		NA	Broa (2), Deer (2), Gall (1), Jeff (1), Madi (8), Park (1)		

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Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Castilleja gracillima</i> ( <i>C. miniata</i> ssp. <i>miniata</i> ) Slender Indian Paintbrush	Scrophulariaceae	G3G4Q/S2		NA	Gall (9), Madi (2), Park (1)		
<i>Ceanothus herbaceus</i> New Jersey Tea	Rhamnaceae	G5/SH		**	Powd (1)		
<i>Celastrus scandens</i> Bittersweet	Celastraceae	G5/S1		NA	Daws (1)		
<i>Centaurium exaltatum</i> Western Centaury	Gentianaceae	G5/SH		**	Bigh (1)		
<i>Centunculus minimus</i> ( <i>Anagallis minima</i> ) Chaffweed	Primulaceae	G5/S2	BLM	NA	Casc (1), Lake (1), Miss (1), Phil (1), Rava (5), Sher (3), Vall (1)		
<i>Cercocarpus montanus</i> var. <i>glaber</i> Birchleaf Mountain-mahogany	Rosaceae	G5T3T5/S1S2		NA	Trea (2)		7 named varieties, 2 known to occur in MT
<i>Chenopodium subglabrum</i> Smooth Goosefoot	Chenopodiaceae	G3G4/S1		NA	Cart (1), Casc (1), Cust (1), Powd (1), Sher (1)		
<i>Chrysothamnus parryi</i> ssp. <i>montanus</i> ( <i>Ericameria parryi</i> var. <i>montana</i> ) Parry's Mountain Rabbitbrush	Asteraceae	G5T1/S1		NA	Beav (1)		Not in Dorn. Only variety known to occur in MT
<i>Cirsium brevistylum</i> Short-styled Thistle	Asteraceae	G4/S1S2		NA	Flat (1), Mine (3), Sand (8)		
<i>Cirsium longistylum</i> Long-styled Thistle	Asteraceae	G3/S3	BLM	Moderate	Broa (10), Casc (11), Ferg (1), Judi (11), Lewi (3), Meag (30), Whea (3)	X	
<i>Clarkia rhomboidea</i> Common Clarkia	Onagraceae	G5/S2	USFS	NA	Linc (2), Sand (14)		
<i>Claytonia arenicola</i> Sand Springbeauty	Portulacaceae	G4/S1	USFS	NA	Sand (1)		Not in Dorn
<i>Cleome lutea</i> Yellow Bee Plant	Capparaceae	G5/S1	BLM	NA	Carb (6)		
<i>Collomia debilis</i> var. <i>camporum</i> Flexible Alpine Collomia	Polemoniaceae	G5T2/S2		NA	NA		3 named varieties, all occur in MT
<i>Collomia tinctoria</i> Yellow-staining Collomia	Polemoniaceae	G5/S1		NA	Lake (1), Rava (1)		
<i>Corydalis sempervirens</i> Pale Corydalis	Fumariaceae	G4G5/S2	USFS	Low-Mod	Flat (13), Glac (2), Linc (1), Powe (1)		
<i>Cryptantha fendleri</i> Fendler Cat's-eye	Boraginaceae	G4/S2	BLM	Low	Beav (1), Sher (2)		

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Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Cryptantha humilis</i> Round-headed Cryptantha	Boraginaceae	G4?/SH		**	Beav (2), Park (1)		
<i>Cryptantha scoparia</i> Miner's Candle	Boraginaceae	G4?/S1	BLM	NA	Carb (1)		Not in Dorn
<i>Dalea enneandra</i> Nine-anther Dalea	Fabaceae	G5/S1		NA	Cust (2), Fall (1), Rich (1)		
<i>Dalea villosa</i> Silky Prairie Clover	Fabaceae	G5/S1		NA	Cart (2), Rich (1), Sher (1)		
<i>Delphinium bicolor</i> ssp. <i>calcicola</i> Limestone Larkspur	Ranunculaceae	G4G5T3/S3		NA	Broa (2), Jeff (3)	X	2 named subspecies, both occur in MT
<i>Downingia laeta</i> Great Basin Downingia	Campanulaceae	G5/S1		NA	Beav (1), Lewi (2), Teto (3)		
<i>Draba crassa</i> Thick-leaf Whitlow-grass	Brassicaceae	G3/S3		NA	NA		
<i>Draba daviesiae</i> ( <i>D. apiculata</i> var. <i>daviesiae</i> ) Bitterroot Draba	Brassicaceae	G3/S3		NA	NA	X	Not in Dorn. <i>D. apiculata</i> in part in Dorn
<i>Draba densifolia</i> Dense-leaf Draba	Brassicaceae	G5/S2		Low-Mod	Beav (1), Flat (1), Glac (4), Jeff (4), Lewi (3), Park (1), Pond (1), Powe (2), Silv (1), Swee (1)		
<i>Draba fladnizensis</i> White Arctic Draba	Brassicaceae	G4/S1		NA	Deer (1), Madi (1), Stil (1)		
<i>Draba globosa</i> Round-fruited Draba	Brassicaceae	G3/S1	BLM	NA	Beav (1), Madi (3)		Not in Dorn
<i>Draba macounii</i> Macoun's Draba	Brassicaceae	G3G4/S1		NA	Flat (2), Glac (4)		Not in Dorn
<i>Draba porsildii</i> Porslid's Draba	Brassicaceae	G3G4/S1		NA	Carb (4), Madi (1)		
<i>Draba ventosa</i> Wind River Draba	Brassicaceae	G3/S1	BLM	NA	Beav (1), Madi (3)		
<i>Drosera anglica</i> English Sundew	Droseraceae	G5/S2S3	USFS	Low	Flat (9), Lake (3), Lewi (2), Linc (4), Madi (1), Miss (4), Park (1), Powe (1), Rava (1), Sand (1)		
<i>Drosera linearis</i> Linear-leaved Sundew	Droseraceae	G4/S1	USFS	Low	Flat (1), Lewi (2), Powe (1)		Not in Dorn
<i>Dryas integrifolia</i> Entire-leaved Avens	Rosaceae	G5/S1		Low	Ferg (2), Gold (1)		

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Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Erigeron allocotus</i> Big Horn Fleabane	Asteraceae	G3/S3		NA	NA		
<i>Erigeron asperugineus</i> Idaho Fleabane	Asteraceae	G4/S1	BLM/USFS	NA	Beav (5), Madi (1), Rava (2)		
<i>Erigeron eatonii</i> Eaton's Daisy	Asteraceae	G5/S1		NA	Lake (1), Swee (1)		
<i>Erigeron evermannii</i> Everman Fleabane	Asteraceae	G4/S1	USFS	NA	Rava (2)		
<i>Erigeron flabellifolius</i> Fan-leaved Fleabane	Asteraceae	G3/S3		NA	NA		
<i>Erigeron formosissimus</i> Beautiful Fleabane	Asteraceae	G5/S1		NA	Beav (1), Carb (1), Deer (1), Madi (1), Park (1), Rava (1)		
<i>Erigeron lackschewitzii</i> ( <i>E. ochroleucus</i> in part) Lackschewitz' Fleabane	Asteraceae	G3/S2	USFS	NA	Flat (5), Glac (1), Lewi (4), Pond (2), Teto (8)		Would key to <i>E. ochroleucus</i> in Dorn
<i>Erigeron leiomerus</i> Smooth Fleabane	Asteraceae	G4/S1		NA	Beav (1), Madi (1)		Not in Dorn
<i>Erigeron linearis</i> Linear-leaf Fleabane	Asteraceae	G5/S1	BLM	Low-Mod	Beav (2), Lewi (2), Park (1), Rava (1), Silv (1)		
<i>Erigeron parryi</i> Parry's Fleabane	Asteraceae	G2/S2	BLM	NA	Beav (4), Jeff (2), Madi (4)	X	Would key to <i>E. ochroleucus</i> in Dorn
<i>Erigeron radicatus</i> Taprooted Fleabane	Asteraceae	G3/S3		NA	NA		
<i>Erigeron tener</i> Slender Fleabane	Asteraceae	G4/S1		NA	Beav (1)		
<i>Eriogonum brevicaule</i> var. <i>canum</i> ( <i>E. lagopus</i> , <i>E. pauciflorum</i> var. <i>canum</i> ) Rabbit Buckwheat	Polygonaceae	G3T3/S3		NA	NA		Not in Dorn
<i>Eriogonum caespitosum</i> Mat Buckwheat	Polygonaceae	G5/S1	BLM	NA	Beav (5)		
<i>Eriogonum capistratum</i> var. <i>muhlickii</i> Muhlick's Buckwheat	Polygonaceae	G4T3/S3		NA	NA	X	Not in Dorn. 3 named varieties, this is the only var. in MT
<i>Eriogonum salsuginosum</i> ( <i>Stenogonum salsuginosum</i> ) Smooth Buckwheat	Polygonaceae	G4?/S1	BLM	NA	Carb (2)		Not in Dorn
<i>Eriogonum soliceps</i> Railroad Canyon Buckwheat	Polygonaceae	G2/S2	BLM	NA	Beav (10), Deer (1)		Not in Dorn
<i>Eriogonum visherii</i> Visher's Buckwheat	Polygonaceae	G3/S1	BLM	Very Low	Cart (1)		Not in Dorn

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<i>Eupatorium maculatum</i> ( <i>Eupatoriadelphus maculatus</i> ) Spotted Joepye-weed	Asteraceae	G5/S1S2		NA	Bigh (5), Carb (1), Yell (1)		
<i>Eupatorium occidentale</i> ( <i>Ageratina occidentalis</i> ) Western Joepye-weed	Asteraceae	G4/S2	BLM/USFS	Low	Beav (1), Mine (1), Rava (8)		
<i>Euphrasia subarctica</i> ( <i>E. disjuncta</i> , <i>E. arctica</i> var. <i>disjuncta</i> ) Arctic Eyebright	Scrophulariaceae	G5/S1		Low	Glac (3)		
<i>Eustoma grandiflorum</i> ( <i>E. russelianum</i> , <i>E. exaltatum</i> ssp. <i>russelianum</i> ) Showy Prairie-gentian	Gentianaceae	G5/S1		High?	McCo (1)		Not in Dorn
<i>Gentiana glauca</i> Glaucous Gentian	Gentianaceae	G4G5/S1		NA	Flat (1)		
<i>Gentianopsis macounii</i> ( <i>Gentianella crinita</i> ) Macoun's Gentian	Gentianaceae	G5/S1	USFS	NA	Glac (2), Teto (2)		<i>Gentianella crinita</i> in Dorn
<i>Gentianopsis simplex</i> ( <i>Gentiana simplex</i> , <i>Gentianella simplex</i> ) Hiker's Gentian	Gentianaceae	G5/S1	USFS	NA	Beav (4), Carb (1), Miss (1)		Not in Dorn
<i>Githopsis specularioides</i> ( <i>G. calycina</i> ) Common Blue-cup	Campanulaceae	G5/S1		NA	Sand (1)		Not in Dorn
<i>Glossopetalon spinescens</i> ( <i>G. nevadense</i> ) Spiny Greenbush	Celastraceae	G5/S1	USFS	Moderate	Rava (1)		Not in Dorn
<i>Gratiola ebracteata</i> Bractless Hedge-hyssop	Scrophulariaceae	G4/S1		NA	Flat (1), Glac (4), Teto (1)		
<i>Grayia spinosa</i> Spiny Hopsage	Chenopodiaceae	G5/S2	BLM	NA	Carb (10), Park (1)		
<i>Grindelia howellii</i> Howell's Gum-weed	Asteraceae	G3/S2S3	BLM/USFS	High	Miss (40), Powe (25)		
<i>Gymnosteris parvula</i> Small-flower Gymnosteris	Polemoniaceae	G4/SH		**	Gall (1)		
<i>Halimolobos perplexa</i> Puzzling Rockcress	Brassicaceae	G4/S1		Low-Mod	Rava (4)	X	Not in Dorn
<i>Haplopappus aberrans</i> ( <i>Tonestus aberrans</i> ) Idaho Goldenweed	Asteraceae	G3/S1	USFS	Low	Rava (4)		Not in Dorn

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<i>Haplopappus carthamoides</i> var. <i>subsquarrosus</i> ( <i>Pyrrocoma c.</i> var. <i>subsquarrosa</i> ) Beartooth Large-flowered Goldenweed	Asteraceae	G4G5T2T3/S1S2	BLM/USFS	NA	Carb (7)		3 named varieties, 2 known to occur in MT
<i>Haplopappus macronema</i> var. <i>macronema</i> ( <i>Ericameria discoidea</i> var. <i>discoidea</i> ) Discoid Goldenweed	Asteraceae	G4G5T4/S1	USFS	NA	Beav (1), Gall (1)		2 named varieties, both in MT
<i>Haplopappus nanus</i> ( <i>Ericameria nana</i> ) Dwarf Goldenweed	Asteraceae	G5/ <b>SH</b>		**	Beav (1)		
<i>Haplopappus pygmaeus</i> ( <i>Tonestus pygmaeus</i> ) Pygmy Goldenweed	Asteraceae	G4/SH		**	Deer (1), Gall (1)		
<i>Heterocodon rariflorum</i> Western Pearl-flower	Campanulaceae	G5/ <b>S2</b>	USFS	Low-Mod	Linc (3), Rava (4), Sand (7)		
<i>Howellia aquatilis</i> Water Howellia	Campanulaceae	G3/S2	Threatened	Moderate	Lake (43), Miss (95)		
<i>Hutchinsia procumbens</i> Hutchinsia	Brassicaceae	G5/S1	BLM	NA	Beav (2), Carb (2), Powe (1)		
<i>Idahoa scapigera</i> Scalepod	Brassicaceae	G5/S1	USFS	NA	Flat (1), Rava (5)		
<i>Ipomoea leptophylla</i> Bush Morning-glory	Convolvulaceae	G3G5/S1S2		NA	NA		
<i>Ipomopsis congesta</i> ssp. <i>crebrifolia</i> Ballhead Gilia	Polemoniaceae	G5T3T4/ <b>S1</b>	BLM	NA	Beav (4)		8 named varieties, 3 known to occur in MT
<i>Ipomopsis minutiflora</i> ( <i>Gilia minutiflora</i> ) Small-flower Standing-cypress	Polemoniaceae	G4/S1		NA	Rava (1)		Not in Dorn
<i>Kalmia polifolia</i> Pale Laurel	Ericaceae	G5/S1	USFS	NA	Flat (4), Miss (1)		Not in Dorn
<i>Kelloggia galloides</i> Kelloggia	Rubiaceae	G5/ <b>SH</b>		**	Mine (1)		
<i>Kochia americana</i> ( <i>Bassia americana</i> ) Red Sage	Chenopodiaceae	G5/S1	BLM	Moderate	Beav (3)		
<i>Koenigia islandica</i> Island Koenigia	Polygonaceae	G4/S1		NA	Carb (5)		
<i>Lagophylla ramosissima</i> Slender Hareleaf	Asteraceae	G5/S1		Low?	Sand (3)		Not in Dorn

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<i>Lathyrus bijugatus</i> Latah Tule Pea	Fabaceae	G4/S1	USFS	NA	Flat (1), Flat (1), Linc (1)		
<i>Leptodactylon caespitosum</i> Leptodactylon	Polemoniaceae	G4/S2	BLM	NA	Carb (13)		
<i>Lesquerella carinata</i> var. <i>languida</i> Garnet Bladderpod	Brassicaceae	G3G4T1/S1	BLM	NA	Gran (3)	X	2 named varieties, both occur in MT
<i>Lesquerella douglasii</i> Douglas Lesquerella	Brassicaceae	G4?/S1		Low	Linc (1)		Not in Dorn
<i>Lesquerella humilis</i> Bitterroot Bladderpod	Brassicaceae	G1/S1	USFS	Low	Rava (4)	X	Not in Dorn
<i>Lesquerella klausii</i> Divide Bladderpod	Brassicaceae	G3/S3		Low	Broa (1), Lewi (33), Meag (4)	X	Not in Dorn
<i>Lesquerella lesiciei</i> Lesica's Bladderpod	Brassicaceae	G1/S1	BLM	Moderate	Carb (3)	X	Not in Dorn
<i>Lesquerella paysonii</i> Payson Bladderpod	Brassicaceae	G3/S1	USFS	NA	Beav (1), Gran (1)		Not in Dorn
<i>Lesquerella pulchella</i> Beautiful Bladderpod	Brassicaceae	G2/S2	BLM/USFS	NA	Beav (14)	X	Not in Dorn
<i>Lewisia columbiana</i> Columbia Lewisia	Portulacaceae	G4/S1		NA	Rava (1)		
<i>Lewisia pygmaea</i> var. <i>nevadensis</i> ( <i>L. nevadensis</i> ) Nevada Lewisia	Portulacaceae	G5T4/S1		NA	Beav (1), Deer (1), Rava (3)		Typical <i>L. pygmaea</i> also in MT
<i>Lobelia spicata</i> Pale-spiked Lobelia	Campanulaceae	G5/S1		NA	Rich (1), Sher (3)		
<i>Lomatium attenuatum</i> Taper-tip Desert-parsley	Apiaceae	G3/S2	BLM	NA	Beav (10), Madi (1)		Not in Dorn
<i>Lomatium geyeri</i> Geyer's Biscuitroot	Apiaceae	G4/S2	USFS	Moderate	Linc (9)		
<i>Lomatium nuttallii</i> Nuttall's Desert-parsley	Apiaceae	G3/S1	BLM	Low-Mod	Bigh (2), Rose (1)		Not in Dorn
<i>Lomatogonium rotatum</i> Felwort	Gentianaceae	G5/S1	BLM	Low	Beav (2)		
<i>Malacothrix torreyi</i> Desert Dandelion	Asteraceae	G4/S1	BLM	NA	Carb (5)		
<i>Mentzelia montana</i> White-bract Stickleleaf	Loasaceae	G4/S1	BLM	NA	Beav (1), Cust (1)		

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<i>Mentzelia nuda</i> Bractless Mentzelia	Loasaceae	G5/S1	BLM	NA	Cust (2), Daws (1), Powd (3), Roos (1), Rose (1), Vall (1)		
<i>Mentzelia pumila</i> Dwarf Mentzelia	Loasaceae	G4/S2	BLM	NA	Carb (16)		
<i>Mertensia bella</i> Oregon Bluebells	Boraginaceae	G4/S1	USFS	Low	Miss (3)		
<i>Mimulus breviflorus</i> Short-flowered Monkeyflower	Scrophulariaceae	G4/S1S2	USFS	NA	Flat (2), Linc (4)		Not in Dorn
<i>Mimulus nanus</i> Dwarf Purple Monkeyflower	Scrophulariaceae	G5/S1	USFS	Low	Gall (3), Rava (4)		
<i>Mimulus patulus</i> ( <i>M. washingtonensis</i> ) Washington Monkeyflower	Scrophulariaceae	G3Q/S1	BLM/USFS	NA	Flat (5), Linc (1)		Not in Dorn
<i>Mimulus primuloides</i> Primrose Monkeyflower	Scrophulariaceae	G4/S2	USFS	Low	Beav (11), Rava (2)		
<i>Mimulus ringens</i> Square-stem Monkeyflower	Scrophulariaceae	G5/S1	BLM	NA	Casc (2), Chou (4), Ferg (1)		Not in Dorn
<i>Nama densum</i> Nama	Hydrophyllaceae	G5/S1	BLM	NA	Carb (1)		Not in Dorn
<i>Nuttallanthus texanus</i> ( <i>Linaria canadensis</i> var. <i>texana</i> ) Blue Toadflax	Scrophulariaceae	G4G5/S1		NA	Cart (1), Daws (1)		Not in Dorn
<i>Nymphaea tetragona</i> ssp. <i>leibergii</i> ( <i>N. leibergii</i> ) Pygmy Water-lily	Nymphaeaceae	G5T5/S1		Low-Mod	Flat (3), Lake (1), Miss (1)		<i>N. tetragona</i> in part in Dorn
<i>Orogenia fusiformis</i> Tapered-root Orogenia	Apiaceae	G5/S2	BLM/USFS	Low	Beav (2), Madi (4), Miss (1), Rava (10)		Not in Dorn. Would incorrectly key to <i>O. linearifolia</i> in Dorn
<i>Oxytropis campestris</i> var. <i>columbiana</i> Columbia Crazyweed	Fabaceae	G5T3/S1		High	Lake (6)		10 named varieties, 3 known to occur in MT
<i>Oxytropis deflexa</i> var. <i>foliolosa</i> Pendent-pod Crazyweed	Fabaceae	G5T3T5/S1		NA	Madi (1)		3 named varieties, 2 known to occur in MT
<i>Oxytropis lagopus</i> var. <i>conjugens</i> Rabbit-foot Crazyweed	Fabaceae	G4G5T3/S3		NA	NA		
<i>Oxytropis parryi</i> Parry's Crazyweed	Fabaceae	G5/S1		NA	Beav (1)		
<i>Oxytropis podocarpa</i> Stalked-pod Crazyweed	Fabaceae	G4/S1	USFS	NA	Glac (1), Teto (4)		

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<i>Papaver kluanensis</i> ( <i>P. radicatum</i> var. <i>kluanense</i> ) Alpine Poppy	Papaveraceae	G5/S1		NA	Carb (2), Swee (1)		
<i>Papaver pygmaeum</i> ( <i>P. radicatum</i> var. <i>pygmaeum</i> ) Alpine Glacier Poppy	Papaveraceae	G3/S1		NA	Flat (4), Glac (12)		
<i>Pedicularis contorta</i> var. <i>ctenophora</i> Coil-beaked Lousewort	Scrophulariaceae	G5T3/S3		NA	Beav (3), Madi (1)		3 named varieties, all occur in MT
<i>Pedicularis contorta</i> var. <i>rubicunda</i> Coil-beaked Lousewort	Scrophulariaceae	G5T3/S3		NA	Rava (7)		3 named varieties, all occur in MT
<i>Pedicularis crenulata</i> Meadow Lousewort	Scrophulariaceae	G4/S1	BLM	Moderate	Beav (2)		Not in Dorn
<i>Penstemon angustifolius</i> Narrowleaf Penstemon	Scrophulariaceae	G5/S1S2	BLM	NA	Cart (10), Fall (1), Miss (1)		
<i>Penstemon attenuatus</i> var. <i>militaris</i> Taper-leaved Beardtongue	Scrophulariaceae	G4T4/SH		**	Rava (1)		4 named varieties, 3 known to occur in MT
<i>Penstemon caryi</i> Cary's Beardtongue	Scrophulariaceae	G3/S3		NA	Carb		
<i>Penstemon flavescens</i> Yellow Beardtongue	Scrophulariaceae	G3/S3		NA	Rava, Mine		
<i>Penstemon globosus</i> Globe Beardtongue	Scrophulariaceae	G4/S1		NA	Gran (1)		Not in Dorn
<i>Penstemon grandiflorus</i> Large Flowered Beardtongue	Scrophulariaceae	G5?/S1		NA	Cust (1)		Not in Dorn
<i>Penstemon lemhiensis</i> Lemhi Beardtongue	Scrophulariaceae	G3/S3	BLM/USFS	Moderate	Beav (56), Deer (7), Rava (29), Silv (3)		
<i>Penstemon payettensis</i> Payette Beardtongue	Scrophulariaceae	G4/S1	USFS	Mod-High	Rava (2)		
<i>Penstemon whippleanus</i> Whipple's Beardtongue	Scrophulariaceae	G5/S1	BLM	NA	Beav (1), Madi (1)		
<i>Petasites frigidus</i> Palmate-leaved Coltsfoot	Asteraceae	G5/S1		NA	Flat (4), Glac (1)		Not in Dorn
<i>Phacelia incana</i> Hoary Phacelia	Hydrophyllaceae	G3G4/S2	BLM	NA	Beav (7)		Not in Dorn
<i>Phacelia scopolina</i> ( <i>P. lutea</i> var. <i>scopolina</i> ) Dwarf Phacelia	Hydrophyllaceae	G4/SH		**	Beav?, Madi? or Silv? (1)		
<i>Phacelia thermalis</i> Hot Spring Phacelia	Hydrophyllaceae	G3G4/S1		NA	Ferg (1), Garf (1), Phil (1), Vall (1)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Phlox andicola</i> Plains Phlox	Polemoniaceae	G4/S2	BLM	NA	Cart (3), Daws (1), Powd (1), Rose (1), Sher (4)		
<i>Phlox kelseyi</i> var. <i>missoulensis</i> ( <i>P. missoulensis</i> ) Missoula Phlox	Polemoniaceae	G4T2/S2	USFS	Low-Mod	Casc (3), Gran (3), Judi (2), Lewi (3), Meag (4), Miss (2), Powe (3)	X	Not in Dorn
<i>Physaria brassicoides</i> Double Bladderpod	Brassicaceae	G5/S2	BLM	Low	Cart (4), Cust (1), Petr (1), Powd (3)		
<i>Physaria didymocarpa</i> var. <i>lanata</i> Woolly Twinpod	Brassicaceae	G5T2/S1	BLM	Moderate	Bigh (2), Rose (3)		3 named varieties, 2 known to occur in MT
<i>Physaria saximontana</i> var. <i>dentata</i> Rocky Mountain Twinpod	Brassicaceae	G3T3/S3		NA	Park (1), Silv (1)	X	Not in Dorn. 2 named varieties, only 1 var. known to occur in MT
<i>Plagiobothrys leptocladus</i> Slender-branched Popcorn-flower	Boraginaceae	G4/S1	BLM	NA	Beav (1), Cust (1), Glac (1), Phil (1)		
<i>Polygonum douglasii</i> ssp. <i>austinae</i> ( <i>P. austinae</i> ) Austin's Knotweed	Polygonaceae	G5T4/S2S3	USFS	Low	Broa (4), Flat (2), Lewi (6), Madi (2), Meag (1), Park (1), Pond (1), Powe (2), Teto (1)		7 named subspecies, 6 known to occur in MT
<i>Polygonum polycarpon</i> ssp. <i>confertiflorum</i> ( <i>P. confertiflorum</i> ) Dense-flowered Knotweed	Polygonaceae	G4G5T3T4/S1S2		NA	Glac (1), Sand (1)		4 named subspecies, 3 known to occur in MT
<i>Potentilla brevifolia</i> Short-leaved Cinquefoil	Rosaceae	G4/S1		NA	Madi (1)		
<i>Potentilla nana</i> ( <i>P. hyparctica</i> , <i>P. flabellifolia</i> var. <i>emarginata</i> ) Low Arctic Cinquefoil	Rosaceae	G4G5/S1		NA	Carb (2)		Not in Dorn
<i>Potentilla platensis</i> Platte Cinquefoil	Rosaceae	G4/S1	BLM	NA	Beav (1), Carb? or Bigh? (1)		
<i>Potentilla quinquefolia</i> ( <i>P. nivea</i> var. <i>pentaphylla</i> ) Five-leaf Cinquefoil	Rosaceae	G4/S1	USFS	NA	Flat (2), Glac (3), Madi (3), Park (1), Pond (1)		
<i>Potentilla uniflora</i> One-flowered Cinquefoil	Rosaceae	G5/S1		NA	Carb (1), Flat (1), Glac (3), Gran (1)		
<i>Primula alcalina</i> Idaho Primrose	Primulaceae	G2/S1	BLM/USFS	Moderate	Beav (2)		Not in Dorn
<i>Primula incana</i> Mealy Primrose	Primulaceae	G4G5/S2	BLM/USFS	Moderate	Beav (9), Broa (1), Carb (1), Deer (2), Gall (2), Jeff (1), Madi (6), Sher (1), Teto (1)		
<i>Prunus pumila</i> Sand Cherry	Rosaceae	G5/S1		Moderate	Fall (1), McCo (1)		
<i>Psilocarphus brevissimus</i> Dwarf Woolly-heads	Asteraceae	G4/S1	BLM	NA	Casc (1), Petr (1), Phil (2), Sand (2)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Psoralea hypogaea</i> ( <i>Pediomelum hypogaeum</i> ) Indian Breadroot	Fabaceae	G5/S2S3		NA	Cart (1), Casc (2), Chou (1), Ferg (2), Gold (1), Powd (1), Rose (4)		
<i>Quercus macrocarpa</i> Bur Oak	Fagaceae	G5/S1	BLM	NA	Cart (1)		
<i>Ranunculus cardiophyllus</i> Heart-leaved Buttercup	Ranunculaceae	G4G5/S1		NA	Glac (5), Swee (1), Tool (2)		
<i>Ranunculus gelidus</i> ( <i>R. karelinii</i> ) Arctic Buttercup	Ranunculaceae	G4G5/S1		NA	Stil (1)		
<i>Ranunculus hyperboreus</i> High-arctic Buttercup	Ranunculaceae	G5/S1		NA	Deer (1), Madi (1)		
<i>Ranunculus jovis</i> Jove's Buttercup	Ranunculaceae	G4/S2	USFS	Low	Beav (6), Carb (1), Gall (2), Madi (3), Park (1)		
<i>Ranunculus orthorhynchus</i> Straightbeak Buttercup	Ranunculaceae	G5/SH		**	Deer (1), Gran (1), Mine (1)		
<i>Ranunculus pedatifidus</i> Northern Buttercup	Ranunculaceae	G5/S1		NA	Chou (1), Glac (2), Gran (1), Libe (1), Tool (1)		
<i>Ranunculus verecundus</i> Timberline Buttercup	Ranunculaceae	G5/S2		NA	Deer (1), Flat (1), Glac (4), Madi (2)		
<i>Ribes laxiflorum</i> Trailing Black Currant	Grossulariaceae	G5/S1		NA	Linc (1)		Not in Dorn
<i>Ribes triste</i> Swamp Red Currant	Grossulariaceae	G5/S1		NA	Beav (1), Deer (1), Gran (1), Mine (1), Rava (1)		
<i>Ribes velutinum</i> Desert Gooseberry	Grossulariaceae	G5/S1		NA	Beav (1)		Not in Dorn
<i>Rorippa calycina</i> Persistent-sepal Yellow-cress	Brassicaceae	G3/S1	BLM	Moderate	Bigh (1), Cust (1), McCo (1), Rose (1), Trea (1), Yell (1)		
<i>Rotala ramosior</i> Toothcup	Lythraceae	G5/S1		NA	Lake (1), Miss (2), Rava (2)		
<i>Sagina nivalis</i> Arctic Pearlwort	Caryophyllaceae	G5/S1		Very Low	Glac (1)		Not in Dorn
<i>Salix barrattiana</i> Barratt's Willow	Salicaceae	G5/S1	USFS	NA	Carb (1), Glac (1)		
<i>Salix cascadensis</i> Cascade's Willow	Salicaceae	G4G5/S1		NA	Deer (1), Gran (1)		
<i>Salix serissima</i> Autumn Willow	Salicaceae	G4/S2		Low	Glac (6), Meag (1), Teto (2)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Satureja douglasii</i> ( <i>Clinopodium douglasii</i> ) Yerba Buena	Lamiaceae	G4/S2		NA	Miss (7), Rava (1), Sand (7)		
<i>Saussurea densa</i> Dwarf Saw-wort	Asteraceae	<b>G4/S1S2</b>		NA	Flat (2), Lewi (1), Pond (1), Teto (7)		
<i>Saussurea weberi</i> Weber's Saw-wort	Asteraceae	G2G3/S1	USFS	NA	Deer (1), Gran (1)		
<i>Saxifraga apetala</i> ( <i>S. integrifolia</i> var. <i>apetala</i> ) Tiny Swamp Saxifrage	Saxifragaceae	<b>G3Q/S1</b>		Very Low	Beav (1), Carb (1)		<i>S. integrifolia</i> in part in Dorn
<i>Saxifraga hirculus</i> Yellow Marsh Saxifrage	Saxifragaceae	G5/S1		NA	Carb (1)		
<i>Saxifraga tempestiva</i> Storm Saxifrage	Saxifragaceae	G2/S2	USFS	Very low	Beav (1), Deer (7), Gran (4), Gran (4), Madi (1), Rava (3)	X	
<i>Senecio ampliceps</i> Clasping Groundsel	Asteraceae	G4/S1		NA	Carb (1)		2 named varieties, only var. <i>holmii</i> is in MT
<i>Senecio eremophilus</i> Desert Ragwort	Asteraceae	<b>G5/S1S2</b>		NA	Bigh (1), Hill (2), Park (1), Phil (1)		3 named varieties, only the typic variety in MT
<i>Senecio spribblei</i> Spribble's Groundsel	Asteraceae	G1/S1		Very Low	Linc (1)	X	Not in Dorn
<i>Shoshonea pulvinata</i> Shoshonea	Apiaceae	G2G3/S1	BLM/USFS	Low	Carb (4)		Not in Dorn
<i>Sidalcea oregana</i> Oregon Checker-mallow	Malvaceae	G5/S1		High	Gall (1), Lake (1)		
<i>Silene spaldingii</i> Spalding's Campion	Caryophyllaceae	G2/S1	Threatened	High	Flat (7), Lake (1), Linc (4), Sand (4)		
<i>Solidago sparsiflora</i> ( <i>S. velutina</i> ) Few-flowered Goldenrod	Asteraceae	G5?/S1	BLM	NA	Garf (1)		
<i>Sphaeralcea munroana</i> White-stemmed Globe-mallow	Malvaceae	G4/S1	BLM	NA	Beav (5)		
<i>Sphaeromeria argentea</i> Chicken Sage	Asteraceae	<b>G3G4/S2S3</b>	BLM	NA	Beav (17)		
<i>Sphaeromeria capitata</i> Rock-tansy	Asteraceae	G3/S3		NA	NA		
<i>Stellaria crassifolia</i> Fleshy Stitchwort	Caryophyllaceae	G5/S1		Low	Beav (1), Carb (1), Deer (1), Sand (1)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Stellaria jamesiana</i> ( <i>Pseudostellaria jamesiana</i> ) James' Stitchwort	Caryophyllaceae	G5/S1	BLM	NA	Beav (2)		
<i>Stephanomeria spinosa</i> ( <i>Lygodesmia spinosa</i> ) Spiny Skeletonweed	Asteraceae	G4/S1	BLM	Low	Beav (1), Madi (5)		
<i>Suckleya suckleyana</i> Poison Suckleya	Chenopodiaceae	G5/S1		NA	Daws (1), Roos (1), Muss (1), Vall (1)		
<i>Sullivantia hapemanii</i> Wyoming Sullivantia	Saxifragaceae	G3/S2	BLM	NA	Bigh (6), Carb (4)		
<i>Synthyris canbyi</i> Mission Mountain Kittentails	Scrophulariaceae	G3/S3		Low	Lake (6), Miss (7)	X	
<i>Taraxacum eriophorum</i> Rocky Mountain Dandelion	Asteraceae	G4/S1	BLM	Low	Beav (3), Gran (1), Madi (1), Park (1)		
<i>Thalictrum alpinum</i> Alpine Meadowrue	Ranunculaceae	G5/S2	BLM/USFS	Low	Beav (9), Deer (2)		
<i>Thelypodium paniculatum</i> Northwestern Thelypody	Brassicaceae	G2/SH	BLM	**	Beav (1)		
<i>Thelypodium sagittatum</i> Slender Thelypody	Brassicaceae	G4/S2	BLM	NA	Beav (16), Gall (2)		Only the typic variety is known in MT
<i>Thlaspi parviflorum</i> Small-flowered Pennycress	Brassicaceae	G3/S2	BLM	Low	Beav (7), Carb (2), Madi (5), Park (1), Silv (2)		
<i>Townsendia condensata</i> Cushion Townsendia	Asteraceae	G4/S1	BLM	Low	Glac (3), Park (1)		
<i>Townsendia florifera</i> Showy Townsendia	Asteraceae	G5/S1	BLM	NA	Beav (2), Madi (1)		Not in Dorn
<i>Townsendia nuttallii</i> Nuttall's Townsend-daisy	Asteraceae	G3/S3		NA	NA		Not in Dorn
<i>Townsendia spathulata</i> Sword Townsendia	Asteraceae	G3/S3		NA	Beav (7), Broa (1), Carb (7), Madi (1), Silv (1)		
<i>Trifolium eriocephalum</i> Woolly-head Clover	Fabaceae	G5/S2	USFS	Moderate	Rava (8)		
<i>Trifolium gymnocarpon</i> Hollyleaf Clover	Fabaceae	G5/S2	USFS	Moderate	Gran (1), Rava (3)		
<i>Utricularia intermedia</i> Flat-leaved Bladderwort	Lentibulariaceae	G5/S1S2	USFS	NA	Flat (3), Linc (2), Miss (1), Powe (1)		
<i>Vaccinium myrtilloides</i> Velvetleaf Blueberry	Ericaceae	G5/S1		Moderate	Flat (3)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Viburnum lentago</i> Nannyberry	Caprifoliaceae	G5/S1		NA	Bigh (2), Rich (1), Roos (1)		
<i>Viguiera multiflora</i> ( <i>Helimeris multiflora</i> ) Many-flowered Viguiera	Asteraceae	G4G5/S1	BLM	NA	Beav (1), Gall (1)		
<i>Viola selkirkii</i> Great Spurred Violet	Violaceae	G5?/S1	USFS	NA	Linc (3)		Not in Dorn
<i>Waldsteinia idahoensis</i> Idaho Barren-strawberry	Rosaceae	G3/S1	USFS	Moderate	Miss (1)		Not in Dorn
<i>Zizia aurea</i> Golden Alexanders	Apiaceae	G5/SH		**	Jeff (2)		

### Flowering Plants - Monocots (*Liliopsida*)

<i>Acorus americanus</i> ( <i>A. calamus</i> ) Sweetflag	Araceae	G5/ <b>SH</b>		**	Flat (1), Lake (1)		<i>A. calamus</i> in Dorn
<i>Allium acuminatum</i> Tapertip Onion	Liliaceae	G5/S1	USFS	NA	Madi (1), Rava (1), Sand (1)		
<i>Allium columbianum</i> Columbia Onion	Liliaceae	G3/S1		Moderate	Sand (1)		Not in Dorn
<i>Allium parvum</i> Small Onion	Liliaceae	G5/ <b>S2S3</b>	USFS	Moderate	Beav (1), Rava (37)		
<i>Allium simillimum</i> Dwarf Onion	Liliaceae	G4/S1		NA	Gall (1), Rava (4)		
<i>Amerorchis rotundifolia</i> ( <i>Orchis rotundifolia</i> ) Round-leaved Orchis	Orchidaceae	G5/S2S3	BLM/USFS	Low-Mod	Flat (4), Glac (1), Lake (1), Lewi (7), Linc (5), Pond (1), Powe (3), Teto (6)		
<i>Calamagrostis tweedyi</i> Cascade Reedgrass	Poaceae	G3/S3		NA	Mine (12), Miss (1), Rava (3), Sand (3)		
<i>Calochortus bruneaunis</i> Bruneau Mariposa Lily	Liliaceae	G5/SH		**	Beav (1)		
<i>Carex amplifolia</i> Big-leaf Sedge	Cyperaceae	G4/S1	USFS	NA	Sand (1)		
<i>Carex chordorrhiza</i> Creeping Sedge	Cyperaceae	G5/S2	USFS	NA	Flat (5), Linc (2), Powe (1)		
<i>Carex comosa</i> Bristly Sedge	Cyperaceae	G5/S1		Mod-High	Flat (1)		Not in Dorn
<i>Carex crawei</i> Crave's Sedge	Cyperaceae	G5/S2	BLM	NA	Casc (1), Pond (2), Powe (1), Prai (1), Teto (3)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Carex gravida</i> Pregnant Sedge	Cyperaceae	G5/S1S2		Low-Mod	Bigh (3), Cart (1), Powd (1), Rose (1)		
<i>Carex idahoana</i> ( <i>C. parryana</i> ssp. <i>idahoana</i> ) Idaho Sedge	Cyperaceae	G2G3/S2S3	BLM/USFS	Low-Mod	Beav (30), Madi (1), Powe (1), Silv (7)		<i>C. parryana</i> in part in Dorn
<i>Carex incurviformis</i> Maritime Sedge	Cyperaceae	G4G5/S1		Low	Deer (1), Glac (1), Madi (1), Teto (2)		
<i>Carex lacustris</i> Lake-bank Sedge	Cyperaceae	G5/S1	USFS	NA	Flat (1), Lake (3)		Not in Dorn
<i>Carex lenticularis</i> var. <i>dolia</i> Goose-grass Sedge	Cyperaceae	G5T3Q/S1		Low	Flat (3), Glac (2), Park (1)		5 named varieties, 3 known to occur in MT
<i>Carex multicostata</i> Many-ribbed Sedge	Cyperaceae	G5/S1		NA	Beav (2), Gall (2), Park (1)		
<i>Carex norvegica</i> ssp. <i>stevenii</i> Steven's Scandinavian Sedge	Cyperaceae	G5TNR/S1		NA	Beav (1), Deer (1)		2 varieties recognized by NRCS PLANTS database, both in MT
<i>Carex occidentalis</i> Western Sedge	Cyperaceae	G4/SH		**	Beav (2)		
<i>Carex petricosa</i> Rock Sedge	Cyperaceae	G4/S1		Moderate?	Glac (2)		
<i>Carex prairea</i> Prairie Sedge	Cyperaceae	G5?/S2	USFS	NA	Flat (2), Linc (4)		Not in Dorn
<i>Carex rostrata</i> Beaked Sedge	Cyperaceae	G5/S1	USFS	NA	Flat (1), Linc (1), Miss (1)		Not <i>C. rostrata</i> as listed in Dorn
<i>Carex scoparia</i> Pointed Broom Sedge	Cyperaceae	G5/S1S2		NA	Miss (5), Rava (3)		
<i>Carex stenoptila</i> Small-winged Sedge	Cyperaceae	G2/S1S2		NA	Carb (2), Flat (1), Gall (1), Madi (1), Rava (2), Stil (1), Swee (2)		
<i>Carex sychnocephala</i> Many-headed Sedge	Cyperaceae	G4/S1		Moderate	Casc (1), Glac (2), Sher (1)		
<i>Carex tenuiflora</i> Thin-flowered Sedge	Cyperaceae	G5/S1		NA	Flat (1)		Not in Dorn
<i>Carex tincta</i> Slender Sedge	Cyperaceae	G4G5/S1		NA	Glac (1), Lake (1), Park (1)		
<i>Carex vaginata</i> Sheathed Sedge	Cyperaceae	G5/S1	USFS	NA	Linc (1)		Not in Dorn
<i>Cyperus acuminatus</i> Short-pointed Flatsedge	Cyperaceae	G5/S1		NA	Sand (1)		
<i>Cyperus erythrorhizos</i> Red-root Flatsedge	Cyperaceae	G5/SH		**	Flat (1)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Cyperus rivularis</i> ( <i>C. bipartitus</i> ) Shining Flatsedge	Cyperaceae	G5/S1		NA	Miss (1), Rava (4)		
<i>Cyperus schweinitzii</i> Schweinitz' Flatsedge	Cyperaceae	G5/S2	BLM	NA	Cart (3), Casc (1), Cust (1), Powd (2), Sher (1)		
<i>Cypripedium fasciculatum</i> Clustered Lady's Slipper	Orchidaceae	G4/S2	USFS	Moderate	Lake (7), Mine (16), Miss (1), Sand (6)		
<i>Cypripedium passerinum</i> Sparrow's-egg Lady's Slipper	Orchidaceae	G4G5/S2	USFS	Low	Flat (6), Glac (1), Lake (3), Lewi (3), Linc (6), Pond (2), Powe (2), Teto (2)		
<i>Dichanthelium oligosanthes</i> var. <i>scribnerianum</i> ( <i>Panicum oligosanthes</i> ) Scribner's Panic Grass	Poaceae	G5T5/S1	BLM	High	Lake (1), Powd (3)		2 named varieties, both occur in MT
<i>Elymus flavescens</i> ( <i>Leymus flavescens</i> ) Sand Wildrye	Poaceae	G4/S1	BLM	Low	Beav (1)		
<i>Elymus innovatus</i> ( <i>Leymus innovatus</i> ) Northern Wildrye	Poaceae	G5/S1	USFS	NA	Casc (2), Glac (2), Pond (1), Teto (1)		
<i>Eleocharis rostellata</i> Beaked Spikerush	Cyperaceae	G5/S2	USFS	Moderate	Carb (1), Flat (3), Lake (4), Lewi (1), Linc (1), Madi (4), Meag (1), Park (1), Sand (1), Swee (1), Teto (2)		
<i>Elodea longivaginata</i> ( <i>E. bifoliata</i> ) Long Sheath Waterweed	Hydrocharitaceae	G4G5/ <b>S1</b>	BLM	NA	Beav (1), Glac (1), Libe (1), Phil (2), Stil (1)		
<i>Epipactis gigantea</i> Giant Helleborine	Orchidaceae	G3G4/S2	USFS	Low-Mod	Carb (2), Flat (7), Gran (1), Lake (10), Madi (1), Powe (1), Teto (1)		
<i>Eriophorum callitrich</i> Sheated Cotton-grass	Cyperaceae	G5/S1		NA	Carb (2)		
<i>Eriophorum gracile</i> Slender Cotton-grass	Cyperaceae	G5/S2	USFS	Low	Flat (9), Lake (5), Linc (6)		
<i>Festuca vivipara</i> ( <i>F. viviparoidea</i> ) Viviparous Fescue	Poaceae	G4G5/ <b>S1</b>		NA	Flat (3), Glac (5)		
<i>Goodyera repens</i> Northern Rattlesnake-plantain	Orchidaceae	G5/S2S3	USFS	Low	Ferg (2), Flat (1), Judi (22), Meag (1), Whea (6)		

## Vascular Plant Species of Concern

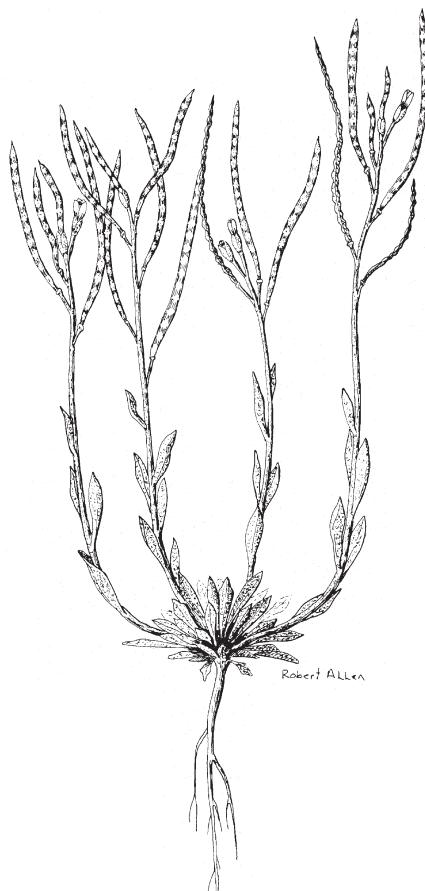
Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Hemicarpha drummondii</i> ( <i>Lipocarpha drummondii</i> ) Drummond's Hemicarpha	Cyperaceae	G4G5/SH		**	Carb (1)		
<i>Heteranthera dubia</i> Water Star-grass	Pontederiaceae	G5/S1	USFS	Moderate	Flat (2), Sand (1)		
<i>Juncus acuminatus</i> Tapered Rush	Juncaceae	G5/S1		NA	Deer (1), Teto (1)		
<i>Juncus albescens</i> ( <i>J. triglumis</i> var. <i>albescens</i> ) Three-flowered Rush	Juncaceae	G5/S1		NA	Flat (2), Glac (7)		<i>J. triglumis</i> in part in Dorn
<i>Juncus covillei</i> var. <i>covillei</i> Coville's Rush	Juncaceae	G5T5/S1		NA	Mine (2), Miss (1), Rava (2), Swee (1)		2 named varieties, both are SOC in MT
<i>Juncus covillei</i> var. <i>obtusatus</i> Coville's Blunt Rush	Juncaceae	G5T4/S1		NA	Rava (1)		2 named varieties, both are SOC in MT
<i>Juncus hallii</i> Hall's Rush	Juncaceae	G4G5/S2	USFS	NA	Beav (1), Broa (1), Jeff (1), Madi (3), Meag (3), Powe (2), Silv (2)		
<i>Kobresia macrocarpa</i> ( <i>K. sibirica</i> , <i>K. bellardi</i> var. <i>macrocarpa</i> ) Large-fruited Kobresia	Cyperaceae	G5/S1		NA	Carb (2)		
<i>Kobresia simpliciuscula</i> Simple Kobresia	Cyperaceae	G5/S2	BLM	NA	Beav (2), Carb (1), Glac (6), Gran (1), Park (1), Teto (2)		Not in Dorn
<i>Lilaea scilloides</i> Flowering Quillwort	Juncaginaceae	G5?/SH		**	Lake (2)		
<i>Liparis loeselii</i> Loesel's Twayblade	Orchidaceae	G5/S1S2	USFS	Low	Lake (7)		Not in Dorn
<i>Listera borealis</i> Northern twayblade	Orchidaceae	G4/S1S2		NA	Rava (1)		
<i>Maianthemum canadense</i> Wild Lily-of-the-valley	Liliaceae	G5/SH		**	Cart (1)		
<i>Najas guadalupensis</i> Guadalupe Water-nymph	Najadaceae	G5/S1		NA	Casc (1), Flat (2), Lake (1), Rava (1)		
<i>Phippsia algida</i> Ice Grass	Poaceae	G5/S1		NA	Carb (5), Stil (1)		
<i>Poa curta</i> ( <i>P. arnowiae</i> ) Short-leaved Bluegrass	Poaceae	G4/S1	BLM	NA	Carb (1)		Not in Dorn
<i>Poa laxa</i> ssp. <i>banffiana</i> Banff Loose-flowered Bluegrass	Poaceae	G5?T1/S1		NA	Glac (1)		Not in Dorn. 2 named varieties, only var. <i>banffiana</i> in MT

## Vascular Plant Species of Concern

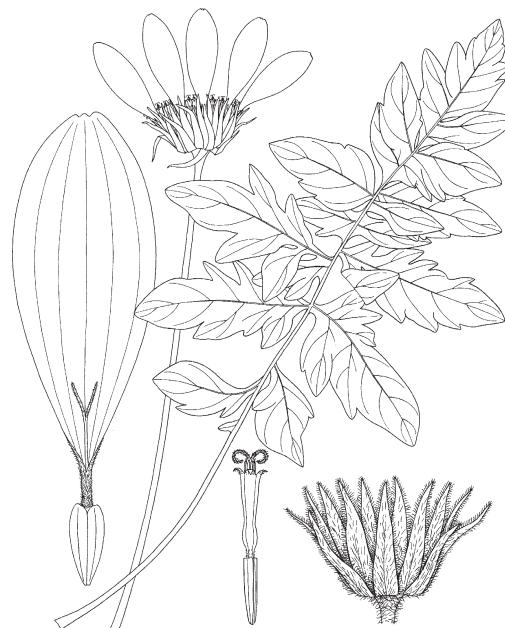
Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Potamogeton obtusifolius</i> Blunt-leaved Pondweed	Potamogetonaceae	G5/S2	USFS	Moderate	Flat (2), Glac (1), Lake (7), Miss (3)		
<i>Puccinellia lemmontii</i> Lemmon's Alkaligrass	Poaceae	G4/S1	BLM	Low-Mod	Beav (2)		Not in Dorn
<i>Scheuchzeria palustris</i> Pod Grass	Scheuchzeriaceae	G5/S2	USFS	Low	Flat (12), Gran (1), Lake (6), Linc (6), Miss (3)		
<i>Scirpus cespitosus</i> ( <i>Trichophorum caespitosum</i> ) Tufted Clubrush	Cyperaceae	G5/S2	USFS	NA	Beav (1), Flat (10), Glac (1), Lake (1), Linc (2), Powe (1), Teto (1)		
<i>Scirpus heterochaetus</i> ( <i>Shoenoplectus heterochaetus</i> ) Slender Bulrush	Cyperaceae	G5/S1	BLM	NA	Phil (1), Sher (1)		
<i>Scirpus hudsonianus</i> ( <i>Eriophorum alpinum</i> , <i>Trichophorum alpinum</i> ) Hudson's Bay Bulrush	Cyperaceae	G5/S1		NA	Flat (2), Glac (1)		
<i>Scirpus pumilus</i> ssp. <i>rollandii</i> ( <i>S. rollandii</i> , <i>Trichophorum pumilum</i> ) Small Clubrush	Cyperaceae	G5T5/S1	BLM	NA	Glac (1), Teto (2)		
<i>Scirpus subterminalis</i> ( <i>Schoenoplectus subterminalis</i> ) Water Bulrush	Cyperaceae	G4G5/S2	USFS	Low-Mod	Flat (4), Lake (1), Lewi (1), Linc (5), Miss (4)		
<i>Sisyrinchium septentrionale</i> Northern Blue-eyed Grass	Iridaceae	G3G4/S1		NA	Sher (1)		Not in Dorn
<i>Sphenopholis intermedia</i> ( <i>S. obtusata</i> var. <i>major</i> ) Slender Wedgegrass	Poaceae	G5/S1		NA	Bigh (1), Gall (1)		
<i>Spiranthes diluvialis</i> Ute Ladies' Tresses	Orchidaceae	G2/S1	Threatened	High	Beav (1), Broa (1), Gall (4), Jeff (2), Madi (4)		Not in Dorn
<i>Sporobolus asper</i> ( <i>S. compositus</i> var. <i>compositus</i> ) Longleaf Dropseed	Poaceae	G5/SH		**	Cart (1), Cust (1)		
<i>Sporobolus neglectus</i> Small Dropseed	Poaceae	G5/S1		NA	Gall (2), Sand (1), Whea (1)		
<i>Stipa lettermanii</i> ( <i>Achnatherum lettermanii</i> ) Letterman's Needlegrass	Poaceae	G5/S1		NA	Beav (1), Bigh (2), Carb (2), Madi (1), Park (1)		
<i>Tofieldia pusilla</i> Small Tofieldia	Liliaceae	G5/S2		NA	Flat (1), Glac (8)		
<i>Veratrum californicum</i> California False-hellebore	Liliaceae	G5/S1	USFS	NA	Gran (3), Rava (2)		

## Vascular Plant Species of Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution	Montana Endemic	Notes
<i>Wolffia columbiana</i> Columbia Water-meal	Lemnaceae	G5/S2		NA	Flat (5), Lake (1), Miss (1), Rava (1)		



*Arabis fecunda*  
(Sapphire Rockcress)  
Illustration by: Robert Allen



*Balsamorhiza macrophylla*  
(Large-leaved Balsamroot)  
Illustration by: John H. Rumely  
From *Vascular Plants of the Pacific Northwest*

# Plant Species of Potential Concern

June 2006

This publication identifies 133 Potential Species of Concern in Montana compared to the 2003 publication which included 220 species. Potential Species of Concern (PSOC) include those taxa currently ranked S3, except for those ranked G3 which are on the SOC list. In this edition, species ranked as SU or SR (insufficient information to assign a rank or reported for Montana) have been moved to a “review” category, which will be used to highlight those species that require more information before a Montana status rank can be assigned.

Many species on this updated PSOC list are here for the first time. This is a result of including all taxa ranked S3 in our databases, many of which have not undergone a thorough rank review for some time. As these species are reviewed using new data on abundance, distribution, threats, habitat specificity and vulnerability, it is likely that changes in status will be warranted and species will be removed. Conversely, many other species in the state are not yet ranked and some will likely warrant inclusion as

PSOC. However, as resources for ranking and tracking species are limited, we may eventually narrow the criteria for inclusion on the PSOC list.

In the past, the Heritage Program did not regularly keep track of occurrences for Potential Species of Concern. When a species was dropped from Species of Concern status, occurrence data were removed from the active Heritage databases. We have now begun managing data on the distribution and status of some Potential Concern plants; though it will take time to reactivate old data records for “dropped” species and begin entering location data for others. The most immediate impact is that species downgraded from Species of Concern to Potential Concern will continue to be “tracked” in the Heritage data system and their occurrences reported through our data request process (with their Potential Concern status clearly indicated). We will also continue entering observational data that we receive for these species, so their status can be monitored in the future.

## Vascular Plant Species of Potential Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution
<b>Ferns and Fern Allies (<i>Pteridophyta</i>)</b>					
<i>Botrychium minganense</i> Mingan Island Moonwort	Ophioglossaceae	G4/S3		NA	NA
<i>Lycopodium alpinum</i> ( <i>Diphasiastrum alpinum</i> ) Alpine Clubmoss	Lycopodiaceae	G5/S3		NA	NA
<i>Lycopodium sitchense</i> ( <i>Diphasiastrum sitchense</i> ) Alaskan Clubmoss	Lycopodiaceae	G5/S3		NA	Flat (3), Linc (2)
<i>Selaginella watsonii</i> Watson's Selaginella	Selaginellaceae	G4/S3		NA	NA
<b>Flowering Plants - Dicots (<i>Magnoliopsida</i>)</b>					
<i>Agoseris lacuschewitzii</i> Pink Agoseris	Asteraceae	G4/S3		NA	NA
<i>Allotropa virgata</i> Candystick	Monotropaceae	G4/S3		NA	Beav (19), Deer (7), Gran (12), Rava (41)
<i>Angelica dawsonii</i> Dawson's Angelica	Apiaceae	G4/S3		NA	NA
<i>Aquilegia jonesii</i> Jones' Columbine	Ranunculaceae	G4/S3		NA	NA
<i>Arenaria kingii</i> King's Arenaria	Caryophyllaceae	G4/S3		NA	NA
<i>Artemisia arbuscula</i> Dwarf Sagebrush	Asteraceae	G5/S3		NA	NA
<i>Artemisia spinescens</i> Bud Sagebrush	Asteraceae	G5/S3		NA	NA
<i>Atriplex canescens</i> Four-wing Saltbush	Chenopodiaceae	G5/S3		NA	NA
<i>Atriplex suckleyi</i> ( <i>A. dioica</i> , <i>Endolepis dioica</i> ) Suckley's Saltbush	Chenopodiaceae	G4?/S3		NA	NA
<i>Aster glaucodes</i> ( <i>Eurybia glacua</i> ) Gray Aster	Asteraceae	G4G5/S3		NA	NA
<i>Astragalus ceramicus</i> var. <i>filifolius</i> Painted Milkvetch	Fabaceae	G4T4/S3		NA	NA

## Vascular Plant Species of Potential Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution
<i>Astragalus chamaeleuce</i> Ground Milkvetch	Fabaceae	G5/S3		NA	NA
<i>Astragalus hyalinus</i> Summer Milkvetch	Fabaceae	G4/S3		NA	NA
<i>Astragalus kentrophyta</i> var. <i>kentrophyta</i> Spiny Milkvetch	Fabaceae	G5T4/S3		NA	NA
<i>Astragalus lentiginosus</i> Sodaville Milkvetch	Fabaceae	G5/S3		NA	NA
<i>Astragalus leptaleus</i> Park Milkvetch	Fabaceae	G4/S3		NA	NA
<i>Astragalus plattensis</i> Platte River Milkvetch	Fabaceae	G5/S3		NA	NA
<i>Astragalus platytropis</i> Broad-keeled Milkvetch	Fabaceae	G5/S3		NA	Beav, Madi, Silv
<i>Bidens comosa</i> ( <i>B. tripartita</i> ) Threelobed Beggarticks	Asteraceae	G5/S3		NA	NA
<i>Camissonia minor</i> ( <i>Oenothera minor</i> ) Small-flowered Evening-primrose	Onagraceae	G4/S3		NA	NA
<i>Castilleja angustifolia</i> Desert Indian Paintbrush	Scrophulariaceae	G5/S3		NA	NA
<i>Castilleja occidentalis</i> Western Indian Paintbrush	Scrophulariaceae	G5/S3		NA	NA
<i>Castilleja longiseta</i> ( <i>C. pilosa</i> var. <i>longiseta</i> ) Parrot-head Indian Paintbrush	Scrophulariaceae	G4/S3		NA	NA
<i>Castilleja rustica</i> ( <i>C. flava</i> var. <i>rustica</i> ) Rustic Indian Paintbrush	Scrophulariaceae	G3G4/S3		NA	NA
<i>Chionophila tweedyi</i> Tweedy Snowlover	Scrophulariaceae	G4/S3		NA	NA
<i>Chrysosplenium tetrandrum</i> Northern Golden-carpet	Saxifragaceae	G5/S3		NA	Gran (4), Rava (28)
<i>Chrysothamnus linifolius</i> Lineleaf Rabbitbrush	Asteraceae	G5/S3		NA	NA
<i>Cordylanthus ramosus</i> Much-branded Birds-beak	Scrophulariaceae	G5/S3		NA	NA

## Vascular Plant Species of Potential Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution
<i>Cryptantha flavoculata</i> Pale Yellow Cryptantha	Boraginaceae	G5/S3		NA	NA
<i>Cryptantha sobolifera</i> Montana Cryptantha	Boraginaceae	G4?/S3		NA	NA
<i>Cryptantha spiculifera</i> Snake River Cat's-eye	Boraginaceae	G4?/S3		NA	NA
<i>Epilobium suffruticosum</i> Shrubby Willow-herb	Onagraceae	G5/S3		NA	NA
<i>Erigeron gracilis</i> Slender Fleabane	Asteraceae	G4/S3		NA	NA
<i>Erigeron humilis</i> Low Fleabane	Asteraceae	G4/S3		NA	NA
<i>Erigeron lanatus</i> Woolly Fleabane	Asteraceae	G3G4/S3		NA	NA
<i>Eriogonum pyrolifolium</i> Alpine Buckwheat	Polygonaceae	G4/S3		NA	NA
<i>Eriogonum umbellatum</i> var. <i>stellatum</i> ( <i>E. u.</i> var. <i>ellipticum</i> ) Starry Buckwheat	Polygonaceae	G5T3T5/S3		NA	NA
<i>Eritrichium howardii</i> Howard Forget-me-not	Boraginaceae	G4/S3		NA	NA
<i>Gaultheria ovatifolia</i> Slender Wintergreen	Ericaceae	G5/S3		NA	NA
<i>Gentiana aquatica</i> ( <i>G. fremontii</i> ) Wet Meadow Gentian	Gentianaceae	G4/S3		NA	NA
<i>Gentianella propinqua</i> ( <i>Gentiana propinqua</i> ) Four-parted Gentian	Gentianaceae	G5/S3		NA	NA
<i>Geocaulon lividum</i> ( <i>Comandra lividum</i> ) Northern Bastard-toadflax	Santalaceae	G5/S3		NA	NA
<i>Gilia inconspicua</i> Shy Gilia	Polemoniaceae	G5/S3		NA	NA
<i>Hackelia cinerea</i> Gray Stickseed	Boraginaceae	G4?/S3		NA	NA
<i>Halenia deflexa</i> Spurred Gentian	Gentianaceae	G5/S3		NA	NA

## Vascular Plant Species of Potential Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution
<i>Halimolobos virgata</i> Twiggy Halimolobos	Brassicaceae	G4/S3		NA	NA
<i>Haplopappus lanuginosus</i> ssp. <i>andersonii</i> ( <i>Stenotus lanuginosus</i> var. <i>andersonii</i> ) Anderson's Mock Goldenweed	Asteraceae	G5T4?/S3		NA	NA
<i>Haplopappus multicaulis</i> ( <i>Oonopsis multicaulis</i> ) Many-stem Goldenweed	Asteraceae	G4/S3		NA	NA
<i>Hedysarum alpinum</i> Apline Sweet-vetch	Fabaceae	G5/S3		NA	NA
<i>Hymenoxys grandiflora</i> ( <i>Tetraneuris grandiflora</i> ) Graylocks Four-nerve Daisy	Asteraceae	G4/S3		NA	NA
<i>Hymenoxys torreyana</i> ( <i>Tetraneuris torreyana</i> ) Torrey Bitterweed	Asteraceae	G4/S3		NA	NA
<i>Impatiens ecalcarata</i> Spurless Touch-me-not	Balsaminaceae	G3G4/S3		NA	NA
<i>Ipomopsis pumila</i> Dwarf Ipomopsis	Polemoniaceae	G4/S3		NA	NA
<i>Lesquerella condensata</i> ( <i>L. alpina</i> ssp. <i>condensata</i> ) Dense Bladderpod	Brassicaceae	G4Q/S3		NA	NA
<i>Linanthus nuttallii</i> ( <i>Linanthastrum nuttallii</i> ) Nuttall's Linanthus	Polemoniaceae	G5/S3		NA	NA
<i>Lomatium bicolor</i> var. <i>bicolor</i> Bicolor Biscuitroot	Apiaceae	G4T3T4/S3		NA	NA
<i>Madia minima</i> Small-headed Tarweed	Asteraceae	G4/S3		NA	NA
<i>Mimulus suksdorfii</i> Suksdorf Monkeyflower	Scrophulariaceae	G4/S3		NA	NA
<i>Mirabilis hirsuta</i> Hairy Four-o'clock	Nyctaginaceae	G5/S3		NA	NA
<i>Musineon vaginatum</i> Rydberg Parsley	Apiaceae	G3G4/S3		NA	NA
<i>Myosotis verna</i> Early Forget-me-not	Boraginaceae	G5/S3		NA	NA

## Vascular Plant Species of Potential Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution
<i>Orobanche corymbosa</i> Flat-topped Broomrape	Orobanchaceae	G4/S3		NA	NA
<i>Oxytropis lagopus</i> var. <i>lagopus</i> Rabbit-foot Crazyweed	Fabaceae	G4G5T3T4/S3		NA	NA
<i>Pedicularis cystopteridifolia</i> Fern-leaved Lousewort	Scrophulariaceae	G4/S3		NA	NA
<i>Pedicularis oederi</i> Oeder's Lousewort	Scrophulariaceae	G5/S3		NA	NA
<i>Pediocactus simpsonii</i> Simpson's Hedgehog Cactus	Cactaceae	G4/S3		NA	NA
<i>Penstemon laricifolius</i> Larch-leaf Beardtongue	Scrophulariaceae	G4/S3		NA	NA
<i>Penstemon lyallii</i> Lyall Beardtongue	Scrophulariaceae	G4/S3		NA	NA
<i>Phacelia glandulosa</i> Glandular Scorpion-weed	Hydrophyllaceae	G4/S3		NA	NA
<i>Phacelia ivesiana</i> var. <i>glandulifera</i> ( <i>P. glandulifera</i> ) Sticky Scorpion-weed	Hydrophyllaceae	G5T5/S3		NA	NA
<i>Physocarpus monogynus</i> Mountain Ninebark	Rosaceae	G4/S3		NA	NA
<i>Pinguicula macroceras</i> ( <i>P. vulgaris</i> var. <i>macroceras</i> ) California Butterwort	Lentibulariaceae	G5/S3		NA	NA
<i>Plantago canescens</i> Gray Pubescent Plantain	Plantaginaceae	G4G5/S3		NA	NA
<i>Plantago tweedyi</i> Tweedy Plantain	Plantaginaceae	G4G5/S3		NA	NA
<i>Prenanthes sagittata</i> Arrow-leaf Rattlesnake-root	Asteraceae	G3G4/S3		NA	NA
<i>Ranunculus populago</i> Mountain Buttercup	Ranunculaceae	G4/S3		NA	NA
<i>Ribes irriguum</i> ( <i>R. oxyacanthoides</i> ssp. <i>irriguum</i> ) Idaho Gooseberry	Grossulariaceae	G3G4/S3		NA	NA
<i>Romanzoffia sitchensis</i> Sitka Mistmaid	Hydrophyllaceae	G4/S3		NA	NA
<i>Rubus ursinus</i> Pacific Blackberry	Rosaceae	G5/S3		NA	NA

## Vascular Plant Species of Potential Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution
<i>Sanicula graveolens</i> Sierra Sanicle	Apiaceae	G4/S3		NA	NA
<i>Saxifraga cernua</i> Nodding Saxifrage	Saxifragaceae	G4/S3		NA	NA
<i>Sedum leibergii</i> ( <i>S. borschii</i> ) Borsch's Stonecrop	Crassulaceae	G4?/S3		NA	NA
<i>Senecio debilis</i> ( <i>Packera debilis</i> ) Rocky Mountain Ragwort	Asteraceae	G4/S3		NA	NA
<i>Senecio fuscatus</i> ( <i>Tephroseris lindstroemii</i> ) Twice-hairy Butterweed	Asteraceae	G4/S3		NA	NA
<i>Senecio megacephalus</i> Nuttall Ragwort	Asteraceae	G4?/S3		NA	NA
<i>Sorbus sitchensis</i> Sitka Mountain Ash	Rosaceae	G5/S3		NA	NA
<i>Stanleya tomentosa</i> Woolly Prince's plume	Brassicaceae	G4/S3		NA	NA
<i>Stanleya viridiflora</i> Green Prince's plume	Brassicaceae	G4/S3		NA	NA
<i>Streptanthella longirostris</i> Streptanthella	Brassicaceae	G5/S3		NA	NA
<i>Suksdorfia violacea</i> Violet Suksdorffia	Saxifragaceae	G4/S3		NA	NA
<i>Synthyris missurica</i> Western Mountain Synthyris	Scrophulariaceae	G4/S3		NA	NA
<i>Tellima grandiflora</i> Large Fringe-cup	Saxifragaceae	G5/S3		NA	NA
<i>Townsendia incana</i> Hoary Townsendia	Asteraceae	G5/S3		NA	NA
<i>Trifolium latifolium</i> Twin Clover	Fabaceae	G4/S3		NA	NA
<i>Trifolium microcephalum</i> Smallhead Clover	Fabaceae	G5/S3		NA	NA
<i>Viola renifolia</i> Kidney-leaf White Violet	Violaceae	G5/S3		NA	NA
<i>Wyethia scabra</i> Rough Mule's Ears	Asteraceae	G4/S3		NA	NA

## Vascular Plant Species of Potential Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution
<b>Flowering Plants - Monocots (<i>Liliopsida</i>)</b>					
<i>Allium fibrillum</i> Fringed Onion	Liliaceae	G4/S3		NA	NA
<i>Agrostis borealis</i> ( <i>A. mertensii</i> ) Northern Bentgrass	Poaceae	G5/S3		NA	NA
<i>Carex capitata</i> Capitate Sedge	Cyperaceae	G5/S3		NA	NA
<i>Carex eburnea</i> Ivory Sedge	Cyperaceae	G5/S3		NA	NA
<i>Carex livida</i> Pale Sedge	Cyperaceae	G5/S3		NA	Flat (12), Glac (1), Lake (5), Lewi (2), Miss (2), Powe (1), Teto (3)
<i>Carex misandra</i> Short-leaf Sedge	Cyperaceae	G5/S3		NA	NA
<i>Carex neurophora</i> Alpine Nerved Sedge	Cyperaceae	G4/S3		NA	NA
<i>Carex paupercula</i> ( <i>C. magellanica</i> ssp. <i>irrigua</i> ) Poor Sedge	Cyperaceae	G5/S3		NA	NA
<i>Carex pelocarpa</i> ( <i>C. nova</i> var. <i>pelocarpa</i> ) Dusky-seed Sedge	Cyperaceae	G4G5/S3		NA	NA
<i>Carex torreyi</i> ( <i>C. abbreviata</i> ) Torrey's Sedge	Cyperaceae	G4/S3		NA	NA
<i>Carex vallicola</i> Valley Sedge	Cyperaceae	G5/S3		NA	NA
<i>Cypripedium parviflorum</i> ( <i>C. calceolus</i> ) Small Yellow Lady's Slipper	Orchidaceae	G5/S3	USFS/BLM	Low-Mod	Flat (20), Gall (2), Gran (1), Jeff (1), Judi (1), Lake (12), Lewi (5), Linc (20), Miss (5), Pond (1), Stil (1), Swee (1), Teto (6)
<i>Dichanthelium wilcoxianum</i> Wilcox's Panic Grass	Poaceae	G5/S3		NA	Cart, Cust, Powd
<i>Eriophorum viridicarinatum</i> Green-keeled Cotton-sedge	Cyperaceae	G5/S3		NA	NA
<i>Erythronium grandiflorum</i> var. <i>candidum</i> White Glacierlily	Liliaceae	G5T3T4/S3		NA	NA

## Vascular Plant Species of Potential Concern

Scientific Name Common Name	Family Name	Global/State Rank	Federal Status	Threat Level	County Distribution
<i>Hierochloe odorata</i> ( <i>H. hirta</i> ssp. <i>arctica</i> ) Sweet Grass	Poaceae	G5/S3		NA	Beav, Blai, Broa, Casc, Flat, Glac, Gall, Linc, Park, Powe, Stil
<i>Juncus biglumis</i> Two-flowered Rush	Juncaceae	G5/S3		NA	NA
<i>Juncus castaneus</i> Chestnut Rush	Juncaceae	G5/S3		NA	NA
<i>Juncus nevadensis</i> Nevada Rush	Juncaceae	G5/S3		NA	NA
<i>Lilium philadelphicum</i> Wood Lily	Liliaceae	G5/S3		NA	NA
<i>Muhlenbergia andina</i> Foxtail Muhly	Poaceae	G4/S3		NA	Casc, Gall
<i>Muhlenbergia minutissima</i> Least Muhly	Poaceae	G5/S3		NA	Gall
<i>Muhlenbergia racemosa</i> Green Muhly	Poaceae	G5/S3		NA	Bigh, Carb, Casc, Chot, Cust, Daws, Judi, Phil, Rose, Roos, Stil, Yell
<i>Najas flexilis</i> Slender Naiad	Najadaceae	G5/S3		NA	NA
<i>Oryzopsis contracta</i> ( <i>Achnatherum contractum</i> ) Contracted Indian Ricegrass	Poaceae	G3G4/S3		NA	Beav
<i>Panicum lanuginosum</i> ( <i>P. occidentale</i> , <i>Dichanthelium acuminatum</i> ) Western Witchgrass	Poaceae	G5/S3		NA	Casc, Deer, Madi
<i>Poa lettermanii</i> Letterman's Bluegrass	Poaceae	G4/S3		NA	Carb
<i>Scirpus cyperinus</i> Wool Grass	Cyperaceae	G5/S3		NA	NA
<i>Scirpus nevadensis</i> Nevada Bulrush	Cyperaceae	G4/S3		NA	NA
<i>Scirpus pallidus</i> Pale Bulrush	Cyperaceae	G5/S3		NA	NA
<i>Sphenopholis obtusata</i> Prairie Wedgegrass	Poaceae	G5/S3		NA	Carb, Casc, Ferg, Gall, Hill, Judi, McCo, Meag, Park, Silv, Whea
<i>Wolffia punctata</i> ( <i>W. brasiliensis</i> ) Spotted Water-meal	Lemnaceae	G5/S3		NA	NA

# Preliminary Ranks for Nonvascular Plant Species

## BRYOPHYTES

The preliminary ranks for rare bryophytes are based on a flora compiled for the U.S. Forest Service by Joe Elliott (1995). This list is largely unchanged from the 2001 publication, except that some global ranks have been updated. Because nonvascular plants are typically so under-represented by collection data, the current focus is on species with the fewest documented Montana records (S1 and SH) and several species of highly restricted habitats. Principle reference collections for Montana bryophytes are located at the University of Montana (MONTU), Montana State University (MONT), and the U.S. Forest Service's Intermountain Research Station Resource Center Herbarium (MRC) in Missoula. The "counties of distribution" listed here are incomplete because not all Montana collection data have been compiled. Anyone who collects a bryophyte species on this list or one potentially new to the state is encouraged to submit a Species of Concern Survey Form and map or a copy of the collection label information to MTNHP.

## LICHENS

The preliminary ranks for rare lichens are based on a Montana lichen flora being compiled by and status recommendations from McCune and Rosentreter (in progress). Their publication will provide much more information not only on Montana lichens, but also on species of concern and the patterns of rarity exhibited by lichens in Montana. Major reference collections for Montana lichens are located at the University of Montana and Montana State University, in addition to large collections at Oregon State University (OSC), Boise State University (SRP) and the personal herbarium of R. Rosentreter. Anyone collecting a lichen identified on this list or potentially new to the state is encouraged to submit a Species of Concern Survey Form and map or a copy of

collection label information. Location records for lichens have not yet been entered into the MTNHP databases, therefore a county distribution is not yet available.

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## Bryophytes

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Aloina brevirostris</i>	Pottiaceae	G3G5/S1		Flat, Linc
<i>Amblyodon dealbatus</i>	Meesiaceae	G3G5/SH		Flat
<i>Andreaea blyttii</i>	Andreaeaceae	G5/S1		Sand
<i>Barbula eustegia</i>	Meteoriaceae	G3?/S1		
<i>Brachythecium reflexum</i>	Brachytheciaceae	G4G5/S1		Flat, Linc
<i>Brachythecium turgidum</i>	Brachytheciaceae	G4/S1		
<i>Bryum arcticum</i>	Bryaceae	G5?/S2		
<i>Bryum calobryoides</i>	Bryaceae	G3/SH		Flat, Lake
<i>Bryum calophyllum</i>	Bryaceae	G5?/SH		
<i>Bryum dichotomum</i>	Bryaceae	GNR/S1		Rava
<i>Bryum ionchocaulon</i>	Bryaceae	G5?/S1		
<i>Bryum pallens</i>	Bryaceae	G4G5/S1		
<i>Bryum schleicheri</i>	Bryaceae	G5?/S1		Glac
<i>Callicladium haldanianum</i>	Hypnaceae	G5/SH		
<i>Calliergon richardsonii</i>	Amblystegiaceae	G4/S1		Glac
<i>Calliergon trifarium</i>	Amblystegiaceae	G4/S1		Flat, Glac
<i>Calliergonella cuspidata</i>	Amblystegiaceae	G5/S1		Flat
<i>Catoscopium nigritum</i>	Catosciaceae	G4G5/S1		
<i>Cinclidium stygium</i>	Mniaceae	G5/S1		
<i>Crumia latifolia</i>	Pottiaceae	G3/S1		
<i>Cynodontium tenellum</i>	Dicranaceae	G3G5Q/SH		
<i>Dendroalsia abietina</i>	Cryphaeaceae	G4/SH		
<i>Desmatodon cernuus</i>	Pottiaceae	G3G5/SH		
<i>Desmatodon heimii</i>	Pottiaceae	G5/S1		Rava
<i>Dichodontium olympicum</i>	Dicranaceae	G3G5/S1		
<i>Dicranella grevilleana</i>	Dicranaceae	G2G4/S1		Glac
<i>Dicranella heteromalla</i>	Dicranaceae	G5?/S1		Flat, Glac
<i>Dicranoweisia cirrata</i>	Dicranaceae	G4/S1		Park
<i>Dicranum acutifolium</i>	Dicranaceae	G5?/S1		Rava
<i>Dicranum fragilifolium</i>	Dicranaceae	G4G5/S1		Flat, Glac, Lake
<i>Dicranum spadiceum</i>	Dicranaceae	G5?/S1		
<i>Didymodon fallax</i> var. <i>reflexus</i>	Pottiaceae	G5T5?/S1		

## Bryophytes

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Didymodon rigidulus</i> var. <i>gracilis</i>	Pottiaceae	G5T5?/S1		
<i>Didymodon vinealis</i> var. <i>brachyphyllus</i>	Pottiaceae	G5TNR/S1		Rava
<i>Distichium inclinatum</i>	Ditrichaceae	G4G5/S1		Glac
<i>Ditrichum ambiguum</i>	Ditrichaceae	G4?/SH		Flat
<i>Drepanocladus cardottii</i> ( <i>Campylium cardottii</i> )	Amblystegiaceae	G1G2/SH		
<i>Entosthodon rubiginosus</i>	Funariaceae	G1G3/SH		Casc
<i>Eucladium verticillatum</i>	Pottiaceae	G4/S1		Gran, Powe
<i>Eurhynchium pulchellum</i> var. <i>barnesii</i>	Brachytheciaceae	G5TNR/S1		Lake, Rava
<i>Fabronia pusilla</i>	Fabroniaceae	G4G5/S1		Madi
<i>Fissidens fontanus</i>	Fissidentaceae	G5/S1		Gran
<i>Funaria americana</i>	Funariaceae	G2G3/SH		Casc, Meag
<i>Grimmia brittoniae</i>	Grimmiaceae	G2/S2	USFS	Flat, Sand
<i>Grimmia incurva</i>	Grimmiaceae	G4G5/S1		Rava
<i>Grimmia mollis</i>	Grimmiaceae	G3G5/S1		Flat, Glac
<i>Hamatocaulis vernicosus</i>	Amblystegiaceae	G5/S1		
<i>Herzogiella striatella</i>	Hypnaceae	G4G5/S1		
<i>Herzogiella turfacea</i>	Hypnaceae	G4G5/S1		
<i>Hygroamblystegium noterophilum</i>	Amblystegiaceae	G4/S1		
<i>Hygrohypnum cochlearifolium</i>	Amblystegiaceae	G4/S1		Linc
<i>Hypnum callichroum</i>	Hypnaceae	G5?/S1		
<i>Kiaeria blyttii</i>	Dicranaceae	G5/S1		Flat
<i>Kiaeria falcata</i>	Dicranaceae	G5/S1		
<i>Kiaeria starkei</i>	Dicranaceae	G5/S1		Glac
<i>Leucolepis acanthoneuron</i>	Mniaceae	G4/S1		Linc
<i>Limprichtia revolvens</i>	Amblystegiaceae	G4G5/S2		
<i>Meesia longiseta</i>	Meesiaceae	G4?/S1		Flat
<i>Meesia triquetra</i>	Meesiaceae	G5/S2	USFS	Carb, Flat, Glac, Lake, Linc, Rava, Teto
<i>Meesia uliginosa</i>	Meesiaceae	G4/S1		Flat, Glac
<i>Mielichhoferia macrocarpa</i>	Bryaceae	G2/S1		
<i>Myurella tenerrima</i>	Pterigynandraceae	G3G4/S1		Glac
<i>Neckera douglasii</i>	Neckeraceae	G4/S1		Flat, Lake
<i>Neckera pennata</i>	Neckeraceae	G5/S1		

## Bryophytes

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Oligotrichum aligerum</i>	Polytrichaceae	G5/S1		Linc
<i>Orthotrichum praemorsum</i>	Orthotrichaceae	G2/S1		Rava
<i>Oxystegus tenuirostris</i>	Pottiaceae	G4/SH		
<i>Paludella squarrosa</i>	Meesiaceae	G3G5/S1		Carb, Flat, Glac
<i>Paraleucobryum enerve</i>	Dicranaceae	G5?/S1		Flat, Glac
<i>Paraleucobryum longifolium</i>	Dicranaceae	G5/S1		Flat
<i>Phascum cuspidatum</i>	Pottiaceae	G5/S1		Rava
<i>Physcomitrium hookeri</i>	Funariaceae	G2G4/SH		
<i>Plagiobryum demissum</i>	Bryaceae	G3G5/S1		
<i>Plagiobryum zieri</i>	Bryaceae	G4G5/S1		
<i>Platyhypnidium riparioides</i>	Brachytheciaceae	G4/S1		Linc
<i>Pohlia drummondii</i>	Bryaceae	G3G4/S1		
<i>Pohlia obtusifolia</i>	Bryaceae	G2G4/S1	USFS	
<i>Pohlia vexans</i>	Bryaceae	G3G5/SH		
<i>Polytrichum lyallii</i>	Polytrichaceae	GU/S1		
<i>Porotrichum bigelovii</i>	Thamnobryaceae	G4/S1		Rava
<i>Pseudocalliergon turgescens</i>	Amblystegiaceae	G3G5/S1		Flat, Glac
<i>Pseudocrossidium obtusulum</i>	Pottiaceae	GU/S1		Rava
<i>Pterygoneurum lamellatum</i>	Pottiaceae	G3G5/S1		
<i>Ptychomitrium gardneri</i>	Ptychomitriaceae	G4/S1		
<i>Racomitrium aquaticum</i>	Grimmiaceae	G3Q/S1		
<i>Racomitrium brevipes</i>	Grimmiaceae	GU/S1		
<i>Racomitrium pygmaeum</i>	Grimmiaceae	GU/S1		Linc
<i>Sarmentypnum sarmentosum</i>	Amblystegiaceae	G4G5/S1		
<i>Schistostega pennata</i>	Schistostegaceae	G3G4/S1		
<i>Scorpidium scorpioides</i>	Amblystegiaceae	G4G5/S2	USFS	Flat, Glac, Lake, Lewi, Linc, Miss, Teto
<i>Seligeria donniana</i>	Seligeriaceae	G4G5/S1		
<i>Sphagnum angustifolium</i>	Sphagnaceae	G5/S2		
<i>Sphagnum centrale</i>	Sphagnaceae	G5/S1		Flat
<i>Sphagnum compactum</i>	Sphagnaceae	G5/S1		Gran
<i>Sphagnum contortum</i>	Sphagnaceae	G5/S1		Flat
<i>Sphagnum fallax</i>	Sphagnaceae	G5/S1		

## Bryophytes

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Sphagnum fimbriatum</i>	Sphagnaceae	G5/S1		Lewi
<i>Sphagnum fuscum</i>	Sphagnaceae	G5/S2		
<i>Sphagnum girgensohnii</i>	Sphagnaceae	G5/S1		
<i>Sphagnum magellanicum</i>	Sphagnaceae	G5/S1		Flat, Miss, Rava
<i>Sphagnum mendocinum</i>	Sphagnaceae	G4/S1		Miss
<i>Sphagnum platyphyllum</i>	Sphagnaceae	G5/S1		
<i>Sphagnum riparium</i>	Sphagnaceae	G5/S1		Miss
<i>Sphagnum subnitens</i>	Sphagnaceae	G5/S1		
<i>Sphagnum wulfianum</i>	Sphagnaceae	G5/S1		Lake
<i>Stegonia latifolia</i>	Pottiaceae	G4G5/S1		
<i>Tayloria acuminata</i>	Splachnaceae	G3G4/SH		
<i>Tayloria lingulata</i>	Splachnaceae	G3G5/S1		Glac
<i>Tayloria serrata</i>	Splachnaceae	G4/S1		Madi
<i>Tetrapodon angustatus</i>	Splachnaceae	G4/S1		Lewi
<i>Tetrapodon mnioides</i>	Splachnaceae	G4/S1		Lewi
<i>Thamnobryum neckeroides</i>	Thamnobryaceae	G4/SH		
<i>Tortula bartramii</i>	Pottiaceae	G2G4/S1		Rava
<i>Tortula muralis</i>	Pottiaceae	G5/S1		
<i>Tortula norvegica</i>	Pottiaceae	G5/S1		Glac, Lake, Madi
<i>Tortula papillosa</i>	Pottiaceae	G5/S1		Rava, Sand
<i>Trachybryum megaptilum</i>	Brachytheciaceae	G4/S1		
<i>Warnstorfia exannulata</i>	Amblystegiaceae	G5/S1		

## Lichens

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Acarospora scabrida</i>	Acarosporaceae	G3G5/S1S		
<i>Adelolecia pilati</i>	Bacidiaceae	G2G4/S1		
<i>Alectoria nigricans</i>	Alectoriaceae	G5/S1		
<i>Alectoria vexillifera</i>	Alectoriaceae	GNR/S2		
<i>Arctoparmelia subcentrifuga</i>	Parmeliaceae	G4G5/S1		

## Lichens

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Aspicilia arctica</i>	Hymeneliaceae	G2G4/S1		
<i>Aspicilia fruticulosa</i>	Hymeneliaceae	G3/S1		
<i>Aspicilia myrinii</i>	Hymeneliaceae	G5/S1		
<i>Bacidia auerswaldii</i>	Bacidiaceae	GNR/S1		
<i>Bacidia granosa</i>	Bacidiaceae	GNR/S1		
<i>Bacidia vermicifera</i>	Bacidiaceae	G2G4/S1		
<i>Bryonora castanea</i>	Lecanoraceae	G3G5/S1		
<i>Bryoria friabilis</i>	Parmeliaceae	G3/S2		
<i>Bryoria implexa</i>	Parmeliaceae	GNR/S1		
<i>Bryoria nadvornikiana</i>	Parmeliaceae	G3G5/S1		
<i>Bryoria simplicior</i>	Parmeliaceae	G3G5/S2		
<i>Bryoria subdivergens</i> ( <i>Nodobryoria subdivergens</i> )	Parmeliaceae	G2/S1	USFS	Linc, Rava
<i>Bryoria tortuosa</i>	Parmeliaceae	G5/S1		
<i>Buellia badia</i>	Physciaceae	G3?/S1		
<i>Cetraria subalpina</i> ( <i>Tuckermannopsis subalpina</i> )	Parmeliaceae	G3?/S2	USFS	Flat, Linc, Powe, Sand
<i>Chaenotheca cinerea</i>	Coniocybaceae	GNR/S1		
<i>Chaenotheca subroscida</i>	Coniocybaceae	G3G4/S1		
<i>Cladina mitis</i>	Cladoniaceae	G5/S1		
<i>Cladina rangiferina</i>	Cladoniaceae	G5/S1		
<i>Cladonia botrytes</i>	Cladoniaceae	G5/S1		
<i>Cladonia digitata</i>	Cladoniaceae	G3G5/S1		
<i>Cladonia transcendens</i>	Cladoniaceae	G5/S1		
<i>Cladonia uncialis</i>	Cladoniaceae	G4G5/S1		
<i>Cliostomum leporsum</i>	Bacidiaceae	GNR/S1		
<i>Collema curtisporum</i>	Collemataceae	G3/S1	USFS	Flat, Glac, Lake, Sand
<i>Collema polycarpon</i>	Collemataceae	GNR/S2		
<i>Cornicularia normoerica</i>	Usneaceae	G3G5/S1		
<i>Cyphelium karelicum</i>	Caliciaceae	GNR/S1		
<i>Dactylina madreporiformis</i>	Parmeliaceae	GNR/S2		
<i>Dactylina ramulosa</i>	Parmeliaceae	G4G5/S2		

## Lichens

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Dimelaena thysanota</i>	Buelliaceae	GNR/S1		
<i>Diploschistes diacapsis</i>	Thelotremaeae	G4G5/S1		
<i>Endocarpon pulvinatum</i>	Verrucariaceae	G4G5/S2		
<i>Endocarpon tortuosum</i>	Verrucariaceae	GNR/S2		
<i>Euopsis granatina</i>	Lichenaceae	G3?/S1		
<i>Evernia divaricata</i>	Parmeliaceae	G4G5/S1		
<i>Farnoldia micropsis</i>	Porpidiaceae	G3G5/S1		
<i>Flavopunctelia flaventior</i>	Parmeliaceae	G5/S1		
<i>Gyalecta foveolaris</i>	Gyalectaceae	G3G5/S1		
<i>Gyalecta jenensis</i>	Gyalectaceae	G3G4/S1		
<i>Hypogymnia enteromorpha</i>	Parmeliaceae	G4/S2		
<i>Hypogymnia inactiva</i>	Parmeliaceae	G3/S1		
<i>Imshaugia aleurites</i>	Parmeliaceae	G5/S1		
<i>Japewia tornoensis</i>	Bacidiaceae	G4G5/S1		
<i>Lecania fuscella</i>	Bacidiaceae	GNR/S1		
<i>Lecanora beringii</i>	Lecanoraceae	G3G4/S1		
<i>Lecanora umbrosa</i>	Lecanoraceae	GNR/S1		
<i>Lecidea dolodes</i>	Lecideaceae	G4/S2		
<i>Lecidea myriocarpoides</i>	Lecideaceae	G3G5/S1		
<i>Lecidea paddensis</i>	Lecideaceae	GNR/S1		
<i>Lecidella effugiens</i>	Lecanoraceae	GNR/S1		
<i>Leptogium subtile (L. minutissimum)</i>	Collemataceae	GNR/S1		
<i>Leptogium tenuissimum</i>	Collemataceae	GNR/S2		
<i>Lobaria hallii</i>	Lobariaceae	G4?/S2		
<i>Lobaria linita</i>	Lobariaceae	G4G5/S1		
<i>Lobaria scrobiculata</i>	Lobariaceae	G3G4/S1		
<i>Melanelia commixta (Cetraria commixta)</i>	Pareliaceae	GNR/S1		
<i>Melanelia septentrionalis</i>	Parmeliaceae	G3G5/S1		
<i>Micarea ternaria</i>	Micareaceae	G1G2/S1		
<i>Miriquidica garovagliai</i>	Lecanoraceae	GNR/S1		
<i>Mycobilimbia sabuletorum</i> ( <i>Bacidia sabuletorum</i> )	Porpidiaceae	G4G5/S1		

## Lichens

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Neofuscelia loxodes</i>	Parmeliaceae	G3G5/S1		
<i>Neofuscelia subhosseana</i>	Parmeliaceae	G4G5/S2		
<i>Parmelia fraudans</i>	Parmeliaceae	G4G5/S1		
<i>Parmelia omphalodes</i>	Parmeliaceae	G2G4/S1		
<i>Parmeliella triptophylla</i>	Pannariaceae	G3G5/S1		
<i>Peltula polyspora</i>	Peltulaceae	G3G5/S1		
<i>Pertusaria amara</i>	Pertusariaceae	G5?/S1		
<i>Pertusaria saximontana</i>	Pertusariaceae	G3G5/S1		
<i>Pertusaria sommerfeltii</i>	Pertusariaceae	G4G5/S1		
<i>Phaeophyscia ciliata</i>	Physciaceae	G4G5/S1		
<i>Phaeophyscia kairamoi</i>	Physciaceae	G3G4/S1		
<i>Phaeorrhiza sareptana</i>	Physciaceae	GNR/S1		
<i>Physcia semipinnata</i>	Physciaceae	G5/S1		
<i>Platismatia stenophylla</i>	Parmeliaceae	G2G4/S1		
<i>Pseudocyphellaria anomala</i>	Lobariaceae	G2G4/S1		
<i>Psora rubiformis</i>	Psoraceae	G3G5/S1		
<i>Psorotrichia nigra</i>	Lichenaceae	GNR/S1		
<i>Psorotrichia schaeereri</i>	Lichenaceae	GNR/S1		
<i>Ramalina farinacea</i>	Ramalinaceae	G3G5/S2		
<i>Ramalina pollinaria</i>	Ramalinaceae	G2G4/S1		
<i>Rhizocarpon hochstetteri</i>	Rhizocarpaceae	G4G5/S1		
<i>Rhizocarpon intermediellum</i>	Rhizocarpaceae	G2G4/S1		
<i>Rhizocarpon polycarpum</i>	Rhizocarpaceae	G3G5/S1		
<i>Rhizoplaca haydenii</i>	Lecanoraceae	G2G3/S1		
<i>Solorina bispora</i>	Peltigeraceae	G3G5/S1		
<i>Solorina octospora</i>	Peltigeraceae	G3G5/S1		
<i>Solorina saccata</i>	Peltigeraceae	G3G5/S2		
<i>Solorina spongiosa</i>	Peltigeraceae	G3G5/S1		
<i>Sporastatia polyspora</i>	Acarosporaceae	G3G5/S1		
<i>Stereocaulon paschale</i>	Stereocaulaceae	G5/S1		
<i>Toninia alutacea</i>	Catillariaceae	G4G5/S1		
<i>Toninia candida</i>	Catillariaceae	G3G5/S2		

## Lichens

Scientific Name	Family Name	Global/State Rank	Federal Status	County Distribution
<i>Toninia ruginosa</i>	Catillariaceae	G3G5/S2		
<i>Tuckermannopsis sepincola</i> ( <i>Cetraria sepincola</i> )	Parmeliaceae	G5/S2		
<i>Umbilicaria havaasii</i>	Umbilicariaceae	G3/S1		
<i>Umbilicaria hirsuta</i>	Umbilicariaceae	G2G4/S1		
<i>Umbilicaria lambii</i>	Umbilicariaceae	G2G4/S1		
<i>Umbilicaria muehlenbergii</i>	Umbilicariaceae	G5/S1		
<i>Umbilicaria polyrhiza</i>	Umbilicariaceae	G2G3/S1		
<i>Usnea cavernosa</i>	Parmeliaceae	G3G5/S1		
<i>Verrucaria calkinsiana</i>	Verrucariaceae	GNR/S1		
<i>Xanthoparmelia angustiphylla</i>	Parmeliaceae	G5/S1		
<i>Xanthoparmelia montanensis</i>	Parmeliaceae	G5/S1		

## Montana Counties



## Plant Species of Concern Survey Form

MONTANA NATURAL HERITAGE PROGRAM - 2005 Revision  
P.O. Box 201800, 1515 E. Sixth Avenue, Helena, MT 59620-1800

At a minimum complete all fields in **Bold** and provide at least 1 of the following; Township/Range/Section data, GPS coordinates or a photocopy of a topographic or other detailed map with the occurrence accurately marked. Please provide as much detail as possible for the remaining fields. Further details on completing this form are available at <http://mtnhp.org>.

**Scientific Name:** \_\_\_\_\_ **Survey Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**Observer(s):** \_\_\_\_\_

Site Name: \_\_\_\_\_ County: \_\_\_\_\_

USGS Quad: \_\_\_\_\_ TRS Data \_\_\_\_\_

**Ownership** (Include contact info for private property): \_\_\_\_\_

**Directions to site:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Occurrence Data

**Total Number:** \_\_\_\_\_ of  Individual plants  stems  clumps **Basis:**  actual count  estimate

If the occurrence is composed of multiple, discrete areas (subpopulations) record the number of subpopulations:

**Number of Subpopulations:** \_\_\_\_\_ and the **population estimate/count for each:** 1. \_\_\_\_ 2. \_\_\_\_ 3. \_\_\_\_  
4. \_\_\_\_ 5. \_\_\_\_ 6. \_\_\_\_ 7. \_\_\_\_ 8. \_\_\_\_ 9. \_\_\_\_ 10. \_\_\_\_ 11. \_\_\_\_ 12. \_\_\_\_ 13. \_\_\_\_

\*\*Total of subpopulation estimates/counts should equal the Total Number listed above\*\*

**Survey Extent:** Are you reasonably confident that the area surveyed and mapped represents the full extent of the population?

Yes  No  Uncertain If No or Uncertain, describe the un-surveyed area (extent, location):

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Phenology (%):** Vegetative/Pre-flower: \_\_\_\_ Flowering/Budding: \_\_\_\_ Fruiting/Dispersed: \_\_\_\_

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Voucher Specimens?** (collector, # and repository): \_\_\_\_\_

**ID Verified by?** \_\_\_\_\_ **Photo Available?**  plant photo  habitat photo

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Topographic Map:** Attach a photocopy of the pertinent survey area from a USGS quad map or other detailed map if available and indicate on the map the exact point locations or boundaries of the observed population or subpopulations, numbered to correspond to the subpopulation numbers above.

### **Habitat and Site Data**

If the occurrence is composed of subpopulations, the following information should be recorded for each subpopulation (on separate sheets labeled with the subpopulation number) if the data is variable across subpopulations or as needed to thoroughly document the occurrence.

Elevation: (average or range): \_\_\_\_\_ Slope (average or range in %): \_\_\_\_\_

Aspect:  N  NE  E  SE  S  SW  W  NW (check all that apply)

Parent Material: \_\_\_\_\_ Soil Texture/Type: \_\_\_\_\_

Dominant Species (highest % cover)

1: \_\_\_\_\_  
2: \_\_\_\_\_  
3: \_\_\_\_\_  
4: \_\_\_\_\_  
5: \_\_\_\_\_  
6: \_\_\_\_\_  
7: \_\_\_\_\_  
8: \_\_\_\_\_  
9: \_\_\_\_\_  
10: \_\_\_\_\_

Exotic Species (species and \*abundance)

1: \_\_\_\_\_  
2: \_\_\_\_\_  
3: \_\_\_\_\_  
4: \_\_\_\_\_  
5: \_\_\_\_\_  
6: \_\_\_\_\_  
7: \_\_\_\_\_  
8: \_\_\_\_\_  
9: \_\_\_\_\_  
10: \_\_\_\_\_

\*Abundance codes for exotic species within or immediately adjacent to the occurrence are: Rare, Infrequent, Occasional, Frequent, and Abundant

General Site Description (habitat, vegetation community, topography, etc): \_\_\_\_\_

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Disturbances/Land use/Threats: \_\_\_\_\_

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GPS Coordinates:    Datum:     NAD27     NAD83    UTM Zone: \_\_\_\_\_

Northing/Latitude: \_\_\_\_\_    Easting/Longitude: \_\_\_\_\_

Additional Coordinates or Waypoints: \_\_\_\_\_

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*The preferred citation for this document is:*

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